

## **Appendix I. Report on a Follow-up Cognitive Testing to Select 2003–04 SASS Principal Items**

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## Background

This research was conducted in order to test modifications to items on the Principal Questionnaire that were made based on previous research. The research included items on time use, professional development, and state and district performance standards.

## Key Findings

- Instruction to include time away from school in calculation of hours worked needs to be more apparent.
- Respondents are including nonprofessional development activities when answering about methods for providing time for professional development.
- Respondents were able to understand and answer the items on state/district standards.

## Methods

Researchers from the U.S. Census Bureau’s Demographic Surveys Division conducted this study on March 31, 2003, and April 1, 2003. Low and high performing schools were identified through state and district internet sites. The definition of low and high performing varied by state. Principals were contacted by phone and asked if they would be willing to participate in a brief telephone interview. Four principals participated in this study and made arrangements to speak with an interviewer. Information about the respondents can be found in table I-1. The study questions were faxed to the principals in advance of the interview. At the scheduled times, the interviewer contacted the principals and asked them to read aloud and think aloud as they answered each question. The interviewer probed following a protocol. A copy of the items can be found in the Attachment. Principals were sent a copy of the 1999–2000 SASS overview as an incentive for participating in the study. This is a small-scale qualitative study and caution should be used in interpreting the findings.

**Table I-1. Characteristics of respondents in cognitive test on principal questionnaire items: 2003**

Respondent	State	School type	Performance	Form
1	Ohio	Middle/High	Low	1
2	Missouri	Elementary	Low	1
3	Arizona	Elementary	High	1
4	Missouri	High	High	1

SOURCE: *Report on a Follow-Up Cognitive Testing to Select 2003–04 SASS Principal Items*, U.S. Census Bureau, 2003.

## Detailed Findings

### Items on Time Use

#### *Hours per Week*

Respondents tended to focus only on time spent at school, rather than including all time spent on school-related activities.

Respondent 1 included only time she is physically at the school. When probed she added in additional time.

Respondent 2 did not include work (contract) hours. She missed the note to include this time in the instruction. The note should be emphasized or incorporated into the item. She also included only time spent at work (although she indicated that she tries to avoid working from home).

Respondent 3 estimated her usual day, which is 11 hours, and then multiplied by 5 days a week and added time for the weekends to give her answer.

Respondent 4 underreported because he did not include time spent working at home.

*Recommendation:* Add instruction that respondents should include both time spent at school and time away from school.

### ***Interacting with Students***

This item captured formal and informal interactions with students as well as positive and negative (discipline) interactions. No changes are required for this item.

Respondent 1 included formal and informal time.

Respondent 2 included discipline problems, walking the hallways, lunch, and dismissal.

Respondent 3 included formal and informal: walking hallways, lunch duty, time in/out of classrooms, and discipline.

Respondent 4 included formal and informal: lunchroom, hallway, activities, running into kids, having kids come down to his office.

*Recommendation:* Use item as tested.

### ***Contract Year***

Respondents reported a variety of contract years. However, in a couple of cases this contract did not fully represent the number of months a principal works at a school.

Respondent 1 reported an 11-month contract, but when probed, reported working a full 12-month year.

Respondent 2 reported 10½ months for this item, but included a contract for summer school in the calculation which should not be counted here.

Respondent 3 reported a 10½ month contract but said that since this is her first year as a principal at this school, she expected to work a full 12 months getting ready for the upcoming year.

Respondent 4 reported working 12 months.

*Recommendation:* Clarify objective of this item—will it be used to calculate salary or time spent working at the school?

## **Items on Professional Development**

### ***Does Your School Have Its Own Budget...***

Respondent 2 included funding from Title I and the district, which did not appear to be a specific professional development budget.

### ***Are the Following Used to Provide Teachers in This School...***

#### *Common planning time for teachers?*

Respondent 1 answered for school policies in general, not specifically thinking about time for professional development.

Respondent 2 included professional development activities here (long-term planning, vertical planning, etc.).

#### *Reduced teacher workload*

Respondent 1 was not thinking specifically about professional development. She answered for coaching and department head, not for general professional development activities.

*Recommendation:* Emphasize that each item needs to be directly related to professional development.

## **Items on Barriers to Dismissal**

Respondent 1 seemed to understand this item well. She indicated that some items (a/f; c/d) sounded familiar, however, was still able to understand that each item was approaching the issue from a different angle.

Respondent 4 thought about these as considerations but not barriers. The respondent indicated that the only barrier is having enough paperwork that will stand up in court.

### ***Personnel Policies***

Respondent 3 initially indicated that she was not sure what this item was asking. When probed further she said “district policies.”

*Recommendation:* Use item as tested.

## **Items on Teacher and School Performance**

### ***Are These Standards Aligned With State Content Standards?***

Respondent 1 answered “yes” because her district originally developed the standards, and then the state copied them for use statewide. It was not clear that there was a connection between content standards and the performance standards.

Respondent 2 asked if state and district performance standards are the same. She was not sure of the difference in her state.

Respondent 3 indicated that state academic standards and the test that assesses the standards are aligned. Three tests are used to satisfy the requirements: State, District, and Stanford 9 (national).

Respondent 4 interpreted the question as “Do we have a strategic plan for the district and then an individual plan for the school, and they all align with the state?” and indicated that this was the case.

*Recommendation:* Use item as tested.

***Which of the Following Best Describes This School’s Performance Last School Year?***

Respondent 2 chose b (passed most district and state performance standards) because the math requirement was not reached for certain minority groups. However, because this is the first year they are required to follow the standards, they have not been penalized or rewarded yet.

Respondent 4 indicated that in his state there are 12 standards. The score on the standards falls into three levels: accredited with distinction (11–12 standards met), accredited (7–10 met), and unacceptable (less than 7 met).

*Recommendation:* Use item as tested.

***As a Result of Meeting These Goals Last School Year...***

*a. Receive cash bonus*

Respondent 3’s school received cash for meeting the standards. Monies come from the state but are distributed by the school based on goals set by a school-site council.

***As a Result of Not Meeting Standards Were You...***

*a. Required to write a school improvement plan*

Respondent 2 answered “yes” but indicated that a written plan is required of the school for reasons unrelated to performance.

*b. Put on an evaluation cycle*

Respondent 1 indicated that all schools in her school’s city are required to be audited every 2 years. Even though this is not performance related, she answered “yes.”

*c. Provided with additional resources...*

Respondent 2 answered “yes,” but these resources came from Title I and federal grant administered through the state—21st century grant.

*Recommendation:* Use item as tested.

**Do You Use Any of the Following to Assess the School's Progress on This Plan?**

*a. Student portfolios*

Respondent 2 answered “yes” because her school uses a quarterly assessment of writing, math skills, comprehension, etc.; however, it is not referred to as a “portfolio.”

*Recommendation:* Use item as tested.

## Attachment. Principal Questionnaire Items Tested

### I. Time Use

These next items ask about the organization of your time at this school.

1. *How many total hours do you spend on ALL school-related activities during a typical FULL WEEK at this school?*

- Include time during school hours and time spent working before school, after school, and on weekends.

Total weekly hours / \_\_ / \_\_ / \_\_ /

2. *How many total hours do you spend interacting with students during a typical FULL WEEK at this school? \*Include both formal and informal interactions.*

Total weekly hours / \_\_ / \_\_ / \_\_ /

3. *How many months is your contract year? Mark only one box.*

- Less than 9 months
- 9 months
- 9½ months
- 10 months
- 10½ months
- 11 months
- 11½ months
- 12 months

### II. Teacher and Principal Professional Development

Items 4–6: This section asks about professional development opportunities and activities for teachers.

4. *Does your school have its own budget for professional development, that is, an amount of money that YOU control?*

- (0172)  Yes  
 No

5. *Does this school provide INSTRUCTIONAL AIDES with time for professional development during regular contract hours?*

*\*Instructional aides are sometimes called paraprofessionals.*

- (New)  Yes  
 No

6a. *Does this school provide TEACHERS with time for professional development during regular contract hours?*

- (0164)  Yes  
 No → GO TO item 7.

6b. *Are the following used to provide teachers in this school with time for professional development during regular contract hours?*

1) *Substitute teachers to cover teachers' classes*

- (0165)  Yes  
 No

2) *Early dismissal or late start for students*

- (0166)  Yes  
 No

3) *Professional days built in before the beginning of the students' school year*

- (0167)  Yes  
 No

4) *Professional days built in during the students' school year*

- (0168)  Yes  
 No

5) *Professional days built in after the students' school year*

- (0169)  Yes  
 No

6) *Common planning time for teachers*

- (0170)  Yes  
 No

7) *Reduced teacher work loads (less time in the classroom with students or less time on assigned non-instructional duties)*

- (0171)  Yes  
 No

### III. Teacher and School Performance

Items 7–12: This section asks about teacher performance, school performance, and district or state performance goals.

7. *Are the following considerations barriers to the dismissal of poor or incompetent teachers in this school?*

a. *Personnel policies*

- (0174)  Yes  
 No

b. *Termination decisions not upheld*

- (0175)  Yes  
 No

c. *Length of time required for termination process*

- (New)  Yes  
 No

d. *Effort required for documentation*

- (New)  Yes  
 No

e. *Tenure*

- (0177)  Yes  
 No

f. *Teacher associations or unions*

- (0178)  Yes  
 No

g. *Dismissal is too stressful and/or uncomfortable for you*

- (0179)  Yes  
 No

h. *Difficulty in obtaining suitable replacements*

- (New)  Yes  
 No

i. *Resistance from parents*

- (New)  Yes  
 No

8a. *Has either your district or state established school performance standards?*

- (0207)  Yes  
 No → GO TO Item 12.

8b. *Are these performance standards aligned with state content standards?*

- (New)  Yes  
 No

8c. *LAST SCHOOL YEAR (2001–02) was your school required to meet district or state performance standards?*

- (New)  Yes  
 No → GO TO Item 12 below.

9. *Which of the following best describes this school's performance last year--*

- a. *Passed all district and state performance standards. → GO TO Item 10.*  
b. *Passed most district and state performance standards. → GO TO Item 11.*  
c. *Passed some district and state performance standards. → GO TO Item 11.*  
d. *Passed no district and state performance standards. → GO TO Item 11.*

10. *As a result of meeting these goals LAST SCHOOL YEAR (2001–02) did your school --*

a. *Receive cash bonuses or additional resources that support schoolwide activities?*

- (0210)  Yes  
 No

b. *Receive cash bonuses or additional resources to distribute to teachers?*

- (0211)  Yes  
 No

c. *Receive non-monetary forms of recognition?*

- (0212)  Yes-- Please specify → 5212 \_\_\_\_\_  
 No

**STOP → GO TO END**

11. *As a result of not meeting some or all of your state performance standards LAST SCHOOL YEAR (2001–02), was this school --*
- a. *Required to write a school or program improvement plan?*
- (0214) 1  Yes  
2  No
- b. *Put on an evaluation cycle with required targeted improvement dates?*
- (0215) 1  Yes  
2  No
- c. *Provided with additional resources to support instructional improvement?*
- (0217) 1  Yes  
2  No
- d. *Penalized by a reduction in resources?*
- (0220) 1  Yes  
2  No
- e. *Required to replace the principal with a new principal, an administrative director, or a manager?*
- (0218) 1  Yes  
2  No
- f. *Subject to reconstitution or takeover regulations?*
- (0219) 1  Yes  
2  No
- g. *Required to provide supplemental educational services (e.g., extra classes or tutoring by an outside provider) to students at no cost to themselves or their families?*
- (New) 1  Yes  
2  No
- h. *Required to provide a school “choice” program in which students can attend other schools within the district, schools in other districts, or private schools at no tuition cost to themselves or their families?*
- (New) 1  Yes  
2  No

*12a. Does this school have a formal school improvement plan?*

- (0221) 1  Yes  
2  No → GO TO end.

*12b. Do you use any of the following to assess this school's progress on this plan?*

*1) State or national tests*

- (0222) 1  Yes  
2  No

*2) Parent or student surveys*

- (0223) 1  Yes  
2  No

*3) Student portfolios*

- (0224) 1  Yes  
2  No

## Appendix J. Results of the Cognitive Pretest on SASS School Library Media Center Questions

This appendix contains a report prepared by the U.S. Census Bureau, and it is organized as follows.

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## Background

In order to test proposed changes to the School Library Media Center Questionnaire, researchers conducted a small qualitative research study in March 2003. The test covered some items from the 1999–2000 School Library Media Center questionnaire as well as new items.

## Key Findings

Testing identified the following cognitive issues with the proposed items:

- Some respondents misunderstood the term “information literacy.”
- All respondents had trouble answering budget questions for computer hardware and audio-visual equipment.
- Most respondents confused specific questions about information literacy in standardized testing with general standardized testing.
- Some items in the scheduling table were either not applicable or needed clarification.

## Methods

Researchers from the U.S. Census Bureau’s Demographic Surveys Division conducted this research from March 20 to March 25, 2003. Schools were contacted by phone and asked if their librarian would participate in the study. When contact was established with the school librarians, they were asked the following questions:

- Are you familiar with the term information literacy?
- What does information literacy mean to you?

A questionnaire was then faxed to the school and an appointment was set for the researcher to call the librarian directly. A concurrent interview was conducted by phone following a structured protocol. (See attachment.) The interviewer was free to deviate from the protocol as required. Interviews lasted 25 to 98 minutes. Librarians were offered a copy of the *1999–2000 Overview of the Schools and Staffing Survey* as an incentive for participation.

**Table J-1. Characteristics of respondents in cognitive test on school library media center questionnaire items: 2003**

Respondent	State
1	South Carolina
2	Montana
3	Georgia
4	West Virginia
5	Maine
6	North Dakota
7	Washington

SOURCE: *Results of the Cognitive Pretest on SASS School Library Media Center Questions*, U.S. Census Bureau, 2003.

## Detailed Findings and Recommendations

### Item 1a–c: Full- and Part-Time Paid Positions

In three states (West Virginia, Washington, North Dakota), the respondents reported that the state does not certify Library Media Specialists. Instead the librarians reported that they have a teaching certificate and an endorsement from the American Library Association. These respondents marked “yes” to being full time. Respondent 6 stated that there is not a college that grants a degree in library science or a related field. The colleges do offer classes in library science and it is possible to obtain a minor in library science. (This respondent has a minor in library science.)

*Recommendation:* Clarify “state certified in library media” or question if the state has a certification process specific to library media.

### Item 2: Skip Instruction

Respondents 1 and 7 both had trouble interpreting the skip instruction. They were unsure if both 1a and 1b had to be marked in order to skip.

*Recommendation:* Capitalize and bold “AND.”

### Item 3: Education Level

Respondent 6 marked associate’s degree as his highest degree even though he actually had a bachelor of arts degree in English because he thought the question wanted to know about degrees in a library related field. His minor was library science, and he felt that the credits he had accumulated in library studies were the equivalent of an associate’s degree. He also commented that the word “particular” in the instructions was a bad wording choice that led him to believe that the question referred to library specific degrees. Respondent 4 commented that there should be a category for a master’s + degree. Respondent 5 kept emphasizing that she almost had a master’s degree as her highest degree, but she did check bachelor’s as her highest degree. She seemed very concerned that we know that she was close to achieving the master’s degree.

*Recommendation:* Eliminate the bullet “If no paid professional staff have a particular degree as their highest degree mark the ‘None’ box for that degree.” It is confusing and it seems that a respondent would not fill out an item that did not apply to them. Consider adding categories that account for degrees plus credits such as masters + 30.

### Item 4: Earned a Master’s Degree in Library-Related Field

Respondents 3 and 1 thought this item was redundant and commented that they had already answered this in item 3. Respondents 4 and 7 answered that they had one paid professional staff member with a master’s in a library-related field even though they had master’s degrees in communications and English, respectively. In some states this degree does not exist (North Dakota and possibly others).

*Recommendation:* Change wording to, “Now thinking about all of the paid professional library media staff, how many have earned a master’s degree in a library-related education field?” or clarify example list.

### **Item 5a&b: Computer Workstations**

All respondents reported computer workstations in the physical library with Internet access. Item seems to be reliable.

### **Item 6a: Computer Hardware Budget**

All seven respondents reported that the school library media center did not have a budget for computer hardware. Many received a budget per pupil but this money generally went toward books. They all said the school or the school district has a technology budget in which they can put in requests for more computer equipment but that it is no guarantee of receiving the equipment.

*Recommendation:* Review the last Private School Universe Survey for reporting of this item. Consider changing the wording and adding a screener question such as: Does this library media center have a budget? What is included in this budget? A. Audio-visual, yes/no, how much? B. Computer hardware, yes/no, how much?, etc.

The current question may not result in responses that adequately reflect the expenditure on computer hardware. It may make sense to delete the question entirely.

### **Item 7a&b: Audio-Visual Budget**

All seven respondents had the same comments for this question as they did for item 6a above. In all cases the library has a budget that could be used for whatever the librarian deemed necessary. Much of the audio-visual equipment received came from the technology budget for the school or school district. Respondent 5 commented that she was on the technology committee and is able to have more influence in getting audio-visual equipment for the library.

*Recommendation:* See comments for item 6a above.

### **Items 8a–f: Scheduling**

Respondents 5, 2, and 4 were unsure if the question had to do with hours the library is open, daily schedule (lunch, etc.), or the usage of library space. Respondent 4 suggested trimming the wording in item f to “classroom teacher.” There were questions among all of the respondents as to what was meant by item f, was it teachers scheduling classes in the library, librarians teaching a class to a specific teacher’s class, or teachers letting children use the library for projects? Respondents 1, 5, and 4 did not understand what was meant by a site-based management team (item 8c).

*Recommendations:* Clarify stem to read, “How much influence do you think each group or person has on scheduling space in the library media center?” Change item f to “classroom teachers.”

We have removed school site council from some of the principal questions and probably should remove school site council from this questionnaire.

Many schools do not have unions. Consider substituting teacher union or association (as we have on other surveys). Also, respondent 6 recommends changing it to teacher union.

Add a “Not Applicable” column because respondents were hesitant to check off any of the categories if the item did not apply.

Respondents suggested adding parents, guidance staff, and public.

### **Item 9: Formal Literacy Training to Librarians**

Six of the respondents said that formal literacy training was not supplied by the school, state, or district. Respondent 3 said that in-techs (training classes) are supplied, but he had not attended any in the last 12 months. Respondent 7 received some formal training sponsored by an association. Respondent 6 said that he is required to get formal training for his certification but must find it on his own.

*Recommendation:* Consider adding “library association” to the stem.

### **Item 10: Formal Literacy Training to Teachers**

Six of the respondents answered “no” to this question. Respondent 1 commented that she gives her own informal version of information literacy training to teachers. Respondent 4 answered “yes” to this question. Respondent 4 seems to have misinterpreted what was meant by information literacy because she said that she helps kids in poverty with their vocabulary and showed the teachers how to use a digital camera.

*Recommendation:* Consider adding “library association” to the stem.

### **Item 11: Content Standards in Information Literacy**

Respondents 5 and 7 were not sure if the school follows content standards. Respondent 3 follows state standards, one American Library Association information power, respondent 1 follows the Southern Association of Colleges and Schools (SACS) standards.

*Recommendations:* None. The question seems reliable.

### **Item 12: Information Literacy Curriculum**

Respondents 1 and 3 said that information literacy is part of the curriculum as a whole. Respondent 1 commented that the schools in his state teach to the test because they are evaluated on the results of standardized tests. Respondent 3 had a similar comment to respondent 1 about the state tests, and he further said that the curriculum is developed to create lifelong learners. Respondent 6 was not sure what information literacy meant but said that the school does follow a library curriculum that teaches the students how to use the systems and look information up on the computer. Respondent 2 checked “no” and said that there is no formal curriculum, rather teachers and librarians collaborate.

*Recommendation:* Question seems to work; however, it may be better to phrase it in the following way: Is information literacy part of this school’s curriculum?

### **Item 13: Information Literacy in Standardized Testing**

Six of the seven respondents answered “yes” and all that answered yes seemed to focus on standardized testing in general and commented that there may be a few questions on the test pertaining to library reference.

*Recommendation:* Since most of the respondents focused specifically on standardized testing it may be better to break the question into two parts: 1. Are students required to take standardized tests? 2. Do these standardized tests include questions or a section on information literacy skills?

#### **Item 14: Feedback on Information Literacy in Standardized Testing**

Five of the seven respondents answered “yes.” They all had the same general comments that they did not specifically get feedback but that anyone had access to this information if they wanted it. Respondent 3 answered “no” and said that he received verbal feedback from teachers. Respondent 5 said as the librarian she received very little feedback on anything.

*Recommendations:* None. The question seems reliable.

#### **Item 15: Library/Teacher Collaboration**

Respondent 5 answered 10 percent and said that last year she taught library skills classes but all were cut out of this year’s budget. Respondent 1 answered typically 50 percent, respondent 6 answered none, and respondent 2 answered 95 percent. Respondent 7 answered 25 percent and commented that library media skills are considered adjunct at best. Respondent 4 answered 75 percent and commented that all teachers bring classes to her to teach library skills. Respondent 3 answered 50 percent and commented that he usually goes to the teachers to see if he can help.

*Recommendations:* None. Question seems to work.

Respondents were asked to define information literacy before taking the survey.

Respondents 4 and 6 said they were not familiar with the term.

#### **Information Literacy Definitions**

The respondents defined “information literacy” in the following ways:

- “Access to databases, print, online materials, being able to access whatever resources you can” (respondent 5).
- “Being able to access information quickly and easily” (respondent 2).
- “Knowing how to access, comprehend, use, and understand what you read. Being literate about information” (respondent 1).
- “Being able to gather information, knowing where, when, and how to gather information” (respondent 3).
- “Everything I do all day long” (respondent 7).

## Attachment. Protocol

School Name: \_\_\_\_\_

Phone Number: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_

**Hello. My name is (state name). I am calling from the U.S. Census Bureau in regards to a study we are conducting. Does this school have a library media center?  
If no library, recruit for teacher.**

**May I please speak with librarian? What is their name?**

\_\_\_\_\_

**(when speaking with librarian)**

**Hello. My name is (state name). I am calling from the U.S. Census Bureau in regards to a short study that we are conducting on behalf of the National Center for Education Statistics (part of the Department of Education). Every 4 years the Census Bureau conducts the Schools and Staffing Survey for NCES. One of the surveys in SASS is aimed at Library Media Centers, and we would like your help in improving this questionnaire. This should only require around 15 minutes of your time, and I will be sending you booklet of results from the last SASS as a thank you for your time.**

**If respondent agrees:**

**I would like to fax you some of the questions that we are interested in studying and then arrange a time that is convenient for you to have a researcher to call you to go over the questions.**

**Could I have your fax number? \_\_\_\_\_**

**What time would be best to call you back? \_\_\_\_\_**

**What number should I reach you on? \_\_\_\_\_**

**So that I can send you the booklet, could I please have your mailing address?**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**(Verify spelling of name) \_\_\_\_\_**

I'd like to ask you one quick question as well.

Are you familiar with the term information literacy?

yes

no

What does information literacy mean to you?

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**Thank you for your time today, (a representative) \_\_\_\_\_ will be calling you at \_\_\_\_\_ (appointment time) to go through the questionnaire that I am faxing to you. Please wait until he/she calls you to answer the questions. If you have any questions, I can be reached at 1.800.221.1204.**

***As we go through this questionnaire I would like for you to read the questions aloud. I would also like you to use a method called “thinking aloud.” What I mean by this is, as you go through the questions, please tell me what you are thinking about the question and what the question or specific words and/or phrases mean to you. I may interrupt periodically to ask questions or to remind you to “think aloud.”***

## **I. Staffing**

These questions ask about the number of professional, clerical, and volunteer staff in your library and the degrees held by the professional staff members.

1. Around the first of October, did any staff members hold FULL-TIME or PART-TIME paid positions or assignments in this library media center in each of the following categories:

- a. Paid state-certified library media specialists

	<u>FULL-TIME</u>	<u>PART-TIME</u>
<input type="checkbox"/> Yes → How many? -----	/ _ / _ /	/ _ / _ /
<input type="checkbox"/> No		

***What is the process for state certification for library media specialists in your state? For this question, did you include library media specialists who were certified in other states but not this state?*** \_\_\_\_\_

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- b. Paid professional staff who are NOT certified as library media specialists?

<input type="checkbox"/> Yes → How many? -----	/ _ / _ /	/ _ / _ /
<input type="checkbox"/> No		

- c. Paid library aides or clerical staff

<input type="checkbox"/> Yes → How many? -----	/ _ / _ /	/ _ / _ /
<input type="checkbox"/> No		

***What is the minimum amount of hours a staff member has to work to be considered full time?***

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2. If you mark “NO” to items 1a and 1b then check here [ ] and go to item (5) on page 2.
3. For this item:
  - Count each paid professional staff member only ONCE. Report each person by his/her highest degree earned. If no paid professional staff have a particular degree as their highest degree, mark the “None” box for that degree.
  - If this library media center does not have any paid professional staff, skip to item 5 on page 2.
  - Do not include library aides or clerical staff.

How many of the paid professional library media center staff have earned the following as their highest degree:

- a. A doctoral degree as their highest degree?  
/ \_\_\_ / \_\_\_ / \_\_\_ / paid professional staff members  
\_\_\_ None
- b. A master’s degree as their highest degree?  
/ \_\_\_ / \_\_\_ / \_\_\_ / paid professional staff members  
\_\_\_ None
- c. A bachelor’s degree as their highest degree?  
/ \_\_\_ / \_\_\_ / \_\_\_ / paid professional staff members  
\_\_\_ None
- d. An associate’s degree as their highest degree?  
/ \_\_\_ / \_\_\_ / \_\_\_ / paid professional staff members  
\_\_\_ None

***If the respondent has listed more staff members in question “3” than they have listed in question “1” be sure to ask if they counted staff members for more than one category. For example: If a staff member has a master’s degree, did they list that same staff member in items 3a–c?***

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4. How many of the paid professional library media staff have earned a master’s degree in a library-related education field such as librarianship, educational media, instructional design, instructional technology, library science, or information science?

/ \_\_\_ / \_\_\_ / \_\_\_ / paid professional staff members  
\_\_\_ None

***What kind of library education related degree has this staff member earned?***

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## II. Technology

These items ask about technology resources in your school library media center.

5a. How many computer workstations does the library media center have for student and staff use?

/ \_ / \_ / \_ / \_ / \_ / Computer workstations  
 \_\_\_ None → GO TO item 6a

***Are these computer workstations located in the library facility? If they are located outside the library facility where are they located?***

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b. Of the computer workstations listed above, how many have access to the Internet?

/ \_ / \_ / \_ / \_ / \_ / Computer workstations  
 \_\_\_ None

6a. During the 2002–2003 school year, did this library media center have a budget for computer hardware?

\_\_\_ Yes  
 \_\_\_ No → GO TO Item 7a

b. What was the total expenditure for computer hardware for this library media center?

*Include expenditures for purchase, rental, and/or lease.  
 Report the amount in whole dollars.*

\$ / \_ / \_ / \_ / \_ / \_ / .00

7a. During the 2002–2003 school year, did this library media center have a budget for OTHER audio-visual equipment?

\_\_\_ Yes  
 \_\_\_ No → GO TO Item 8

b. What was the total expenditure for OTHER audio-visual equipment for this library media center?

*Include expenditures for purchase, rental, repair, and/or lease.  
 Report the amount in whole dollars.*

\$ / \_ / \_ / \_ / \_ / \_ / .00

***What types of items are included in the budget?***

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***Did you separate budget items according to computer hardware and other audio-visual equipment?***

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***What do you consider as computer hardware?***

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***What types of items are considered audio-visual equipment?***

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***Who determines the budget?***

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***How much control do you have over the budget?***

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***Is there a specific budget allocated for the library or is it included with the school's overall budget?***

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### **III. Scheduling**

We are interested in learning about the use of this library media center.

8. How much influence do you think each group or person has on making library media center scheduling decisions?

\*Mark (X) for each line.

	No influence	Minor influence	Moderate influence	Major influence
a. Principal				
b. Library media center staff				
c. Site-based management team				
d. Union (through contract negotiations)				
e. School district				
f. Library media center staff collaborating with classroom teachers				

***Are there any other groups or persons who are not listed above that have influence on making library media center scheduling decisions? If so, who are they?***

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#### IV. Information Literacy and Collaboration

The items in this section ask about information literacy skills. Information Literacy is the ability to recognize when information is needed, and the ability to locate, evaluate, and effectively use the needed information.

9. In the past TWELVE months, has the state, district, or school provided formal training on information literacy instruction to library media center staff?

Yes  
 No

***What do you consider formal training?***

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10. In the past TWELVE months, has the state, district, or school provided formal training on information literacy instruction to teachers?

Yes  
 No

***If yes: what type of training was supplied?***

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***Was the training required?***

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11. Does this school follow state, district, or school content standards in information literacy?

Yes  
 No

***If yes: which standards does your school follow?***

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***If no: is there a state, district, or school content standards in information literacy?***

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12. Does this school follow an information literacy curriculum?

Yes  
 No

***If answer is yes: who developed the curriculum?***

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13. Are students required to take standardized tests that include assessments on information literacy skills?

- Yes  
 No

14. Does the library media center receive formal feedback on students' information literacy skills?

- Yes  
 No

***If yes: what type of feedback do you receive?***

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15. During the 2002–2003 school year, what percent of teachers in this school collaborated with the library media center staff to plan and deliver instruction?

- /  /  /  /  percent of teachers in this school  
 None

## Appendix K. Details of SASS Frame Creation and Sample Selection Procedures

The details in this appendix support on the discussion in chapter 4.

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This appendix contains the documentation for a number of topics related to the Schools and Staffing Survey (SASS) frame creation and sample selection procedures as discussed in chapter 4. The first topic discussed below is the decision to change from using the administrative definition of a public school to one based on the school’s physical location. The second issue involves the school sample allocation methodology for public and private schools. The third presents the research done to determine the sample sort order implemented to select public and private schools for the SASS sample. Fourth, a discussion of the methodology for controlling the overlap between SASS and the Education Longitudinal Study of 2002 (ELS:2002) is presented. Finally, research into the school district variances is discussed that investigates whether all districts should be sampled from particular states.

## **Using a Physical Location Definition for Schools**

In an effort to maximize the quality of SASS data a new step was added to the public school frame building process that was intended to more accurately reflect the public schools’ physical realities as defined by SASS. SASS has used the Common Core of Data (CCD) definition of a public school since 1990–91 (the administrative reality as reported by the state) and specified this in the collection process. In most states, the physical reality of the school—the students, teachers, and administrators operating within a building as a single school—matched the administrative reality, but there were schools in a number of states where the data were inconsistent. Where this mismatch existed, there was a growing disparity between the respondents’ reported teacher and student counts and the CCD numbers because respondents often reported for more grades than were listed on CCD. The difference between the physical and administrative realities in the problematic states<sup>1</sup> significantly and negatively impacted the collection, processing, and measurement of SASS items. Changing the SASS frame to a physical reality would not negatively impact teacher and student counts in the states where there was little difference between the two, but would dramatically improve the quality of the data in the problem states.

This section of the appendix describes the problems resulting from using the CCD definition of schools as the basis for collecting SASS data from a number of perspectives, explains the approach used to collapse schools, and then discusses how this new approach impacted the 2003–04 SASS sample.

### **The Problem: Physical Reality vs. Administrative Reality**

The problem can be understood most readily by highlighting the different definitions of “public school.” Schools are the primary sampling unit for SASS. In SASS, a public school is defined as having at least one teacher and serving at least one grade between 1 and 12. Schools that only teach kindergarten, prekindergarten, or adult education are not included in the sample. The SASS principal and teacher surveys administered in conjunction with the school survey ask principals and teachers a number of important questions that relate to the school environment. Responses from the school surveys provide important student and teacher counts, measures of programs and services, as well as a number of other measures of the school’s environment. These questions focus on the school—the building, students, and staff—as the respondents understand and experience its physical reality.

Since the 1990–91 administration, SASS has used CCD as the sampling frame. CCD is the Department of Education’s primary database on public elementary and secondary schools in the United States. CCD defines a public school as one that “provides educational services to students, has an assigned administrator, receives public funds as its primary support, and is operated by an educational agency” (Hoffman 2002, p. 24). Information is gathered annually on public schools through surveys sent to state

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<sup>1</sup> The list of “problematic states” varies with each administration as the operational definition of “problematic state” has varied. There were 10 problem states in the 1990–91 administration, 6 in the 1993–94, and 16 in the 1999–2000 administration. Many of the same states are included on all three lists.

education departments. This information is largely based on administrative records maintained by state education agencies and reflects the school's administrative reality.

In most states, a school's physical reality matches its administrative reality. Some states, however, assign multiple administrative units to one physical location or have two principals operating within a single building. For example, a state may classify schools by elementary and secondary levels and report Smalltown High School and Smalltown Elementary School. In fact, the school that operates in Smalltown may be Smalltown K–12. Because CCD defines schools according to their administrative unit, the cover of the survey will say either Smalltown High School or Smalltown Elementary School. It is this mismatch between the administrative reality and physical reality that is responsible for a number of problems in the data collected from the school survey.

The three primary consequences of the mismatch between the physical and administrative definition of a school were visible in student enrollment and teacher overcounts, respondent error, and extensive data processing/editing of the raw data. The overcounting of students and teachers was identified as a problem when SASS estimates were compared to CCD estimates. Even after editing was completed, SASS estimates varied significantly from CCD numbers in several states. A more telling indicator, though, is the discrepancy between SASS estimates and CCD after it was adjusted to include only those schools meeting the SASS definition of school. SASS estimates should closely track those of its sampling frame. Diverging estimates point to recurring errors that can be addressed, at least in part, by better aligning the physical and administrative realities of schools.

### **Differences between SASS and CCD Numbers**

For all administrations of the survey the SASS estimates have differed from CCD. Differences at the national level suggest that student counts were measured most accurately by SASS in 1987–88. The differences at the national level masked more dramatic variation occurring at the state level. For the most recent three administrations of SASS, the SASS estimates have been compared to the CCD numbers at the state level. As can be seen below, there are recurring problems in a number of states. The differences noted below remained after extensive editing of the responses.

#### 1999–2000 SASS

- For four states, the SASS final estimate for teachers was more than 105 percent of the CCD number: Alabama, Massachusetts, Montana, and Pennsylvania. There were no states with estimates larger than 110 percent of CCD.
- For two states, the enrollment count exceeded the CCD number by more than 105 percent: Pennsylvania and South Dakota.

#### 1993–94 SASS

- For 17 states, the CCD number of full-time-equivalent (FTE) teachers exceeded one standard error of the SASS estimate. Two of those states, Montana and Wyoming, were identified as problem states for that administration. A total of eight states appeared on the list of the problem states in the 1999–2000 SASS: Arkansas, Colorado, Minnesota, Montana, Nevada, Rhode Island, Wisconsin, and Wyoming.
- For eight states, the enrollment number on CCD was not within one standard error of the SASS estimate. These states included California, Florida, Illinois, Massachusetts, Minnesota, Missouri, Nevada, and Rhode Island.

## 1990–91 SASS

- For 16 states, the number of FTE teachers on CCD was not within one standard error of the SASS estimate. Three of these states, Montana, South Dakota, and Wisconsin, were considered problem states during this administration of SASS. A total of eight states were problem states again in the 1999–2000 SASS: Colorado, Iowa, Kansas, Montana, Rhode Island, South Dakota, Wisconsin, and Wyoming.
- For four states, the student enrollment number on CCD was not within one standard error of the SASS estimate: New Hampshire, New York, Pennsylvania, and South Dakota.

**Differences between SASS and the Adjusted CCD Frame**

In most states, benchmarking SASS estimates with CCD counts does make sense and is a useful way to evaluate the data. However, it is worth noting that there are reasons to expect SASS estimates to diverge from CCD estimates and for this reason SASS is not poststratified to match CCD. While SASS uses CCD as a sampling frame, the CCD frame is changed in a number of ways before drawing the SASS sample. Schools on the CCD frame that are excluded from SASS because they do not meet the SASS definition include: schools that are closed (they stay on CCD for a year after closing), schools not offering at least 1<sup>st</sup> grade, and homeschools. In addition, there are frame building activities in California and Pennsylvania where previous administrations have identified a number of administrative units that are operating as schools according to the SASS definition but are not included on the CCD frame. Consequently, the classification of specialized districts followed in CCD is disaggregated for SASS. Finally, the purpose of SASS also distinguishes it from CCD. SASS is designed to provide data about the school's functional reality, or its environment, while CCD focuses on administrative units and imposes this uniform definition of school from state to state. The notion that SASS should match CCD fails to acknowledge these differences.

The differences between the enrollment and teacher counts from CCD and from the adjusted CCD, as illustrated in table K-1, are the result of changes in the definition of public school as used for CCD. However, the final SASS estimates still deviated significantly from the adjusted frame in several states. In the 1999–2000 SASS, the extensive editing process to which the data were subjected did bring student counts much closer to the adjusted CCD counts—only one state had an enrollment count that was more than 10 percent of the adjusted CCD. However, the gap between the adjusted CCD and final SASS estimates for the number of teachers increased. In 10 states the final SASS weighted estimates of teachers exceeded the adjusted CCD counts by more than 15 percent. These states were: District of Columbia, Maine, Maryland, Massachusetts, Minnesota, Montana, New Jersey, Pennsylvania, South Dakota, and Virginia. An additional 16 states had edited weighted estimates of teachers that exceeded the adjusted CCD counts by more than 10 percent.

Notably, the SASS estimates were closer to CCD than they were to the sampling frame. It is expected that the CCD numbers and SASS estimates would differ because of the changes that were made to the CCD before schools were sampled from it. It is reasonable to expect, though, that the SASS estimates should be close to the sampling frame's counts. For several states, this expectation was not met. One cause of this error was the continuing mismatch in definition of a public school used by SASS and the sampling frame.

**Table K-1. National teacher and student enrollment totals based on Schools and Staffing Survey (SASS), Common Core of Data (CCD), and adjusted CCD frame numbers, by survey administration: 1987–88, 1990–91, 1993–94, 1999–2000**

Survey administration	Edited SASS final estimates	CCD	SASS as a percentage of CCD	Adjusted CCD frame	SASS as a percentage of adjusted CCD frame
1999–2000					
Teachers	2,889,275 <sup>1</sup>	2,906,554 <sup>2</sup>	99.41	2,612,307 <sup>3</sup>	110.60
Enrollment	45,099,507 <sup>1</sup>	46,857,321 <sup>2</sup>	96.25	45,417,830 <sup>3</sup>	99.30
1993–94					
Teachers	2,501,112 <sup>4</sup>	2,505,074 <sup>5</sup>	99.84	—	—
Enrollment	41,621,660 <sup>6</sup>	43,476,268 <sup>5</sup>	95.73	—	—
1990–91 <sup>7</sup>					
Teachers	2,255,331	2,397,351	94.08	—	—
Enrollment	40,092,448	41,223,804	97.26	—	—
1987–88 <sup>8</sup>					
Teachers	—	—	—	—	—
Enrollment	39,911,968	40,068,780	99.61	—	—

— Not available.

<sup>1</sup> U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), “School Questionnaire” and “Teacher Questionnaire,” 1999–2000.

<sup>2</sup> U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), “State Nonfiscal Survey of Public Elementary/Secondary Education,” 1999–2000.

<sup>3</sup> Analysis run by the Census Bureau for National Center for Education Statistics.

<sup>4</sup> U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), “Teacher Demand and Shortage Questionnaire,” 1993–94.

<sup>5</sup> U.S. Department of Education, National Center for Education Statistics. (1995, May). *Statistics in Brief: Public School Student, Staff, and Graduate Counts by State, School Year 1993–94* (NCES 95–213).

<sup>6</sup> U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), “Public School Questionnaire,” 1993–94.

<sup>7</sup> U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), “Teacher Demand and Shortage Questionnaire,” 1990–91. U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), “Public Education Agency Universe,” 1990–91.

<sup>8</sup> U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), “School Questionnaire,” 1987–88.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), “Public School Questionnaire,” 1993–94; “School Questionnaire,” 1987–88, 1999–2000; “Teacher Demand and Shortage Questionnaire,” 1990–91, 1993–94; “Teacher Questionnaire,” 1999–2000; Common Core of Data (CCD), “Public Education Agency Universe,” 1990–91; “State Nonfiscal Survey of Public Elementary/Secondary Education,” 1999–2000; *Statistics in Brief: Public School Student, Staff, and Graduate Counts by State, School Year 1993–94*, Common Core of Data (CCD), “State Nonfiscal Survey,” 1993–94.

## Respondent Error

The most serious problem attributable to the mismatch between the sampling frame and the physical reality of the schools was respondent error. Typically, teachers and students were overcounted because the schools reported on all grades served, rather than the specific range of grades assigned to them by the sampling frame. Consider the example of Smalltown School, a school operating as a K–12 school in a problem state. CCD would list Smalltown Elementary and Smalltown High School as separate schools on the sampling frame. In many instances such as this, one of these two administrative units is sampled. When Smalltown K–12 receives the SASS school survey, the respondent might fill out the school survey reporting on Smalltown K–12 regardless of whether the survey is addressed to Smalltown Elementary or

Smalltown High School. The respondent error is identified when the student and teacher counts for a school differ significantly from the expected enrollment and teacher counts as reported on the frame.

In the 1999–2000 administration, there were nine states with unedited weighted teacher counts that were more than 115 percent of the adjusted CCD count for the state. These estimates ranged from 117.8 percent in Arkansas to 202.9 percent in Virginia.<sup>2</sup> An additional nine states had counts that were between 110 and 115 percent of the adjusted frame. Three states had unedited weighted student counts that were greater than 115 percent of the adjusted CCD counts and an additional five states had enrollment counts that were between 107 and 115 percent of the adjusted CCD. Census Bureau staff indicated that the evidence suggested that schools were reporting for the physical reality of the school rather than the administrative reality of the school or, in some instances, reporting the district counts rather than the school counts.

There is less detailed documentation of the pre-edit counts of teachers and students by state from earlier administrations, but there is documentation of similar problems.

#### 1993–94 SASS

- Six hundred and sixty-two public school records, or 7.3 percent of the sample, were rejected because the number of teachers reported was at least 25 percent greater than expected.
- Three hundred and ninety-eight public school records, or 4.4 percent of the sample, were rejected because the number of students reported was at least 20 percent greater than expected.
- Five states and the District of Columbia had high edit rejection rates (the percentage of records rejected within each state is in parentheses): Montana (20.6 percent of records); New Jersey (8.2 percent of records); North Dakota (29.2 percent of records); South Dakota (25.7 percent of records); Wyoming (32.4 percent of records); District of Columbia (35.6 percent of records).

#### 1990–91 SASS

- Nine states had full-time-equivalent teacher counts that were at least 15 percent greater than those reported on CCD: Arkansas, Iowa, Missouri, Montana, Nebraska, North Dakota, Oklahoma, South Dakota, and Wisconsin.
- Three hundred schools from 10 states were edited for consistency with CCD, including the nine states listed above plus Arizona. Thus, 16.2 percent of the sample from these 10 states were edited to match CCD.

#### 1987–88 SASS

- There were significant overcounts for students and teachers.
- Respondents erroneously reported for physical reality of school rather than administrative reality and for districts rather than schools.
- Recollection of some data and significant editing resulted in processing delays.

## Processing/Editing Burden

The failure of respondents to provide answers consistent with the CCD's definition of the school resulted in a lengthy editing process. These edits included some that were relatively straightforward and made corrections based upon frame information, which identified respondent "mistakes." These corrections, however, required consistency edits to variables when reasonable assumptions could be made and, finally,

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<sup>2</sup> The discrepancy in Virginia was also attributable to the fact that the population count of teachers was based on an imputed count from CCD. (Virginia did not report its teacher counts to CCD for many years.) However, the next highest discrepancies were 141.7 percent in South Dakota and 140.5 in Montana.

edits to variables when the evidence was vague or ambiguous. Each SASS administration has required significant editing efforts to address problems related to this issue. The details of the 1999–2000 SASS processing operation are outlined below.

Schools that reported grade ranges inconsistent with CCD and that had teacher or student counts that varied by more than 30 percent from the frame were sent through a pre-editing process. Each of these cases was evaluated individually. The grade range of these schools was compared to the frame. If a school reported grade levels inconsistent with CCD, then those “extra” grade levels were deleted from the SASS file. Subsequently, teachers in those grades that were no longer considered a part of the school were reclassified as out-of-scope. The number of students and teachers was reduced proportionally based upon the appropriate grades listed on the frame. These two counts were the variables for which Census had accurate frame information.

The problem with the teacher count was magnified when there was a physical/administrative reality mismatch because of the way teachers were counted in SASS. If the actual school contained more grades than the sampled school, respondents to the Teacher Listing Form were asked to count teachers teaching part time within the expected grade range and part time outside the expected grade range as part-time teachers. Respondents often reported these full-time teachers at the physical school as full-time teachers at the administrative school. This process inflated the number of full-time teachers, especially in small schools.

After resolving the student and teacher counts on these first two items, Census staff then evaluated every other variable on the school file that included a teacher or student count and adjusted them as necessary. For teacher or student ethnicity, for example, the total would be altered to match the appropriate total and the entry for each category would be adjusted to the initial proportion for the new total. Other variables with counts required corrections that were not as transparent. The counts for limited-English-proficient students and the National Student Lunch Program did not have references to the grades served. If the reported numbers exceeded the adjusted enrollment, the counts were reduced proportionally based upon the proportion of students in the sampled school compared to the reported enrollment. If the reported numbers were less than the enrollment, a judgment needed to be made with respect to whether the count required a proportional reduction. Moving beyond the teacher and student count variables, attempts were made to make consistency edits when possible. For example, if the sampled school was an elementary school that erroneously reported for K–12, edits were made to make program offerings consistent with the appropriate grade range—an elementary school was not likely to offer Advanced Placement. These edits became somewhat subjective and called into question the validity of the remaining responses for these schools.

Once this pre-editing was complete, all surveys were processed through the edits, final interview status recode (ISR), imputation, final edits, and weighting. Consequently, the discrepancy between the school unit sampled from the frame and the actual school as experienced by respondents led to significant data problems in a number of states. After the pre-edit processing was complete, 17 states in the 1999–2000 SASS had an edit rejection rate<sup>3</sup> of at least 25 percent—amounting to 1,083 cases, or schools. These states included Arkansas, Iowa, Kansas, Maine, Missouri, Montana, Nebraska, New Hampshire, New Jersey, North Dakota, Oklahoma, Pennsylvania, Rhode Island, South Dakota, Vermont, Wisconsin, and Wyoming. In addition, 17 states had at least 6 percent of their sampled public schools, totaling 476 cases,

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<sup>3</sup> The edit rejection rate is the proportion of public schools failing one or more of the criteria outlined in the edit specifications and is specific to the grade range problem.

edited for corrections.<sup>4</sup> These states included Arkansas, Colorado, Iowa, Kansas, Minnesota, Missouri, Montana, Nebraska, New Hampshire, New Mexico, North Dakota, Oklahoma, Rhode Island, South Dakota, Vermont, Wisconsin, and Wyoming. (See table K-2 for details on editing.)

**Table K-2. Indicators of grade range error for public school questionnaire, by selected states: 1999–2000**

State	Edit rejections		Edit corrections		Pre-edit enrollment as percentage of CCD	Post-edit enrollment as percentage of CCD	Pre-edit number of teachers as percentage of CCD	Post-edit number of teachers as percentage of CCD
	Rate (%)	Number of cases	Rate (%)	Number of cases				
Total	†	†	†	†	108	99	117	112
South Dakota	55	118	30	65	134	102	142	123
North Dakota	51	92	23	42	108	97	121	113
Montana	48	88	27	50	115	97	141	116
Nebraska	40	65	25	41	109	98	119	111
Iowa	38	65	22	37	117	99	120	109
Arkansas	38	61	16	26	106	97	118	113
Oklahoma	35	127	16	58	107	98	111	108
Wisconsin	33	57	16	28	106	99	115	114
Missouri	28	51	14	25	104	98	112	110
New Hampshire	28	33	11	13	105	101	113	110
Wyoming	41	54	14	18	100	96	119	112
Vermont	33	39	6	7	99	98	109	111
Kansas	32	52	8	13	101	98	104	109
Rhode Island	26	26	9	9	103	101	103	109
Minnesota	20	—	10	18	108	102	114	116
Colorado	24	—	7	12	107	102	108	110

— Not available.

† Not applicable.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), “Processing Public School Data File,” 1999–2000.

This was a lengthy process that required significant changes to the data at the pre-edit and edit processing stages. Some of these changes were based upon strong empirical evidence as to what the appropriate response should have been, while others required or made assumptions for which the evidence was sparse or nonexistent. The complexity, burden, and imprecision of this process argued for changing the sampling frame to better reflect the physical reality of the school.

## **Results of Using a Physical Location Definition for Schools in 2003–04 SASS**

In implementing the collapsing of CCD records to reflect the physical reality, a replicable standard was implemented to the collapsing process. This collapsing process relied on software currently used for updating the Private School Universe Survey (PSS) list frame, modified to adhere to the standards described below. In general, this software matched records on certain criteria, including address, and

<sup>4</sup> The edit correction rate is the proportion of public schools where data were corrected as a result of the edit process due to the grade range problem. This rate is substantially lower than the edit rejection rate because many records fail initially, but further inspection reveals that the records cannot be classified as definite misreporting.

resulted in a list of records matching on the defined criteria. This list of matches was reviewed clerically to verify the match status of the identified cases.

## Collapsing Rules

**Restricted Rules.** Potential candidates for collapsing had to match on ZIP code, school type, public charter school flag, address, and phone number. Candidates had contiguous nonoverlapping grade ranges, meaning that there was no more than one grade overlapping or missing from the resulting grade range.

**Relaxed Rules.** Potential candidates for collapsing had to match on ZIP code, school type, public charter school flag, and two of the following three: phone number, address, and name of school. Candidates had contiguous nonoverlapping grade ranges, meaning there was no more than one grade overlapping or missing from the resulting grade range.

## Address Matching

The software standardized addresses, parsing address fields into component parts such as street number, street name, directional suffix, street type, and ZIP code. Abbreviations were standardized and spacing was set consistently. The components were subsequently matched one by one. If all of the address components matched, the address was considered a match.

In collapsing CCD records, Census Bureau staff matched on standardized location address if the location address was available. In a few states, it was observed that physical address was not provided on CCD records, so matching on a standardized mailing address was used as an alternative.

## Criteria Application to CCD Collapsing

The matching program used by Census Bureau staff was designed to identify collapsing records on standardized address, telephone number, school type, and public charter school status. Records matching on all of these criteria were output, with the output sorted on ZIP code for ease of review. The output was clerically reviewed to verify that grade ranges (rather than enrollment by grade) were either nonoverlapping or overlapping by no more than one grade and were consecutive. For example, K–6 could collapse with 6–8, however K–6 could not collapse with 9–12, and K–6 could not collapse with 4–8. Schools matching on all criteria were collapsed.

In certain states (e.g., Montana, Nebraska, Oklahoma), it was known from past experience that these criteria failed to identify all schools that viewed themselves as one physical entity. This was due to variations in address and telephone number reporting. In these states, an alternative standard was applied, whereby schools had to match on at least two of the following three: standardized address, telephone number, or keyword in the school's name. Keyword was defined as whatever remained after stripping off the word "school," "academy," etc. and any school grade level descriptors (e.g., elementary, high, senior, junior, middle, primary, upper, lower, intermediate). In the interest of time, this keyword standard was applied clerically. The school type, public charter school status, and grade range criteria also applied to the schools collapsed via the alternative standard.

## Collapsing the Records

Once it was determined which records to collapse, the SASS sampling frame had one record per collapsed set of CCD records. Teacher counts, enrollment, and grade range were summed from the collapsed set of CCD records. The address and phone number of the first record in the set were arbitrarily chosen. Names

were generalized to avoid grade range descriptors. For example, “Spring Valley Elementary” and “Spring Valley Jr/Sr High” were collapsed to “Spring Valley School.” As a first step after sampling, field representatives contacted sampled schools to verify name and address, so if incorrect assumptions were made, they were corrected as a first step in the field data collection.

### **Application of Collapsing Rules to States**

The relaxed collapsing rules were applied in nine states:

1. Nebraska;
2. Montana;
3. Oklahoma;
4. North Dakota;
5. South Dakota;
6. Arkansas;
7. Iowa;
8. Missouri; and
9. Minnesota.

Three states were excluded from the collapsing process:

1. New York;
2. Pennsylvania; and
3. New Jersey.

Census Bureau staff made the determination that the collapsing rules did not work well in these three states. It appeared the schools in these states did not need to collapse. The details of how this determination was made are provided in the following section.

The restricted rules were applied in all other states.

### **Justification**

In determining what collapsing rules were optimum for a particular state, three pieces of information were considered: 1) results of calling some of the larger collapsed schools; 2) the amount of collapsing that would occur under the restricted and relaxed rules and the size distribution of these resulting schools; and 3) the results from the 1999–2000 SASS pre-edit review regarding schools that reported for the wrong grade range.

First, the Census Bureau called a total of 21 schools: 10 in New York, 5 in Pennsylvania, and 6 in Wisconsin. Of the 21 schools, 17 had a final collapsed enrollment of greater than 1,000 and 4 had a final collapsed enrollment of 750 to 999. Of the 21 collapsed schools, 20 had grade levels with separate administrators and thus should not have been collapsed, and one school was legitimately collapsed. Of the 15 schools in New York and Pennsylvania, all had appeared to collapse under the restricted rules (i.e., phone and address). In all cases the schools resided on one campus but were in separate buildings or separate wings. Phone numbers given on CCD were for either an automated menu system or for the district office. In Wisconsin, the six schools had been collapsed under the relaxed but not the restricted rules.

Second, the conclusion from the calling operation was that schools with a larger enrollment generally should not be collapsed. However, since the amount of calling was limited, it could not be determined

what the appropriate cut-off value would be for using enrollment as a collapsing criterion. It was decided that the size distribution of the schools that resulted from application of the collapsing rules within each state would be considered.

Third, for the 10 traditional problem states, the collapsing results were matched to the list of edit corrections from the 1999–2000 SASS that were supplied by Census Bureau processing staff. Table K-3 provides those results by state and by which criteria would cause the school to collapse.

**Table K-3. SASS edit corrections for traditional problem states, by number of schools meeting collapsing criteria (weighted number of schools in parentheses): 1999–2000**

State	Total edit corrections (self-identified as combined school)	Results when applying collapsing rules			
		Address and phone	Address and name	Phone and name	Schools not collapsed
Oklahoma	51	16	15	1	19
Montana	49	37	6	6	0
Nebraska	40	15	4	1	20
North Dakota	39	29	4 (10.0)	0	6
South Dakota	48	36	2 (8.7)	2 (17.2)	8
Arkansas	26	7	13 (81.8)	0	6
Iowa	37	9	6 (37.3)	2 (19.0)	20
Missouri	27	12	8 (88.5)	1 (11.9)	6
Minnesota	18	5	6 (53.1)	0	7
Wisconsin	27	14	1 (3.1)	0	12

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), “Processing Public School Data File,” 1999–2000.

The collapsing results for the 10 traditional problem states are listed in table K-4. Results are presented for the restricted as well as the relaxed criteria, along with the number of larger schools (enrollment 750–999 and 1,000 or more) that collapsed.

**Table K-4. Collapsing results for traditional problem states, by matching criteria and enrollment: 2003–04**

State	Total schools eligible for SASS	Schools collapsing by criteria:			Large schools collapsing by enrollment	
		Restricted option Address and phone	Relaxed option Address and name    Phone and name		750–999	1,000 or more
Montana	870	215	56	18	10	4
Oklahoma	1,807	109	192	21	11	16
Nebraska	1,281	110	50	11	2	4
South Dakota	756	193	42	7	5	0
North Dakota	562	97	28	3	1	1
Iowa	1,499	82	86	8	10	5
Arkansas	1,144	48	137	11	18	25
Missouri	2,326	91	195	9	24	33
Minnesota	2,317	91	83	11	19	27
Wisconsin	2,157	113	88	23	32	21

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), “Public School Sampling Frame and Adjusted Sampling Frame,” 2003–04.

Collapsing results for the remaining 41 states are presented in table K-5. Results are presented only for the restricted criteria along with a size distribution of the schools that collapsed.

**Table K-5. Collapsing results using restricted criteria for nonproblem states, by enrollment distribution: 2003–04**

Nonproblem state	Total schools	Schools lost due to collapsing	Large schools collapsing, by enrollment	
			750–999	1,000 or more
Alabama	1,527	8	2	2
Alaska	522	9	0	0
Arizona	1,863	25	0	3
California	8,907	32	6	2
Colorado	1,667	79	0	1
Connecticut	1,080	3	0	0
Delaware	199	1	0	1
Dist of Columbia	198	0	0	0
Florida	3,418	9	1	0
Georgia	1,979	6	3	1
Hawaii	279	0	0	0
Idaho	690	10	0	0
Illinois	4,348	123	3	4
Indiana	1,979	8	0	4
Kansas	1,432	41	1	0
Kentucky	1,475	22	1	2
Louisiana	1,541	3	2	0
Maine	714	2	0	0
Maryland	1,383	1	0	0
Massachusetts	1,908	6	2	2
Michigan	3,982	46	4	6
Mississippi	1,046	2	0	0
Nevada	530	12	0	0
New Hampshire	472	25	3	2
New Jersey	2,430	13	0	9
New Mexico	835	42	1	0
New York	4,353	114	25	40
North Carolina	2,253	3	0	0
Ohio	3,912	37	8	7
Oregon	1,301	7	0	1
Pennsylvania	3,251	60	11	21
Rhode Island	333	0	0	0
South Carolina	1,150	1	0	0
Tennessee	1,646	0	0	0
Texas	7,747	115	4	10
Utah	793	2	0	0
Vermont	392	1	1	0
Virginia	2,095	2	0	0
Washington	2,218	27	2	1
West Virginia	822	1	0	0
Wisconsin	2,157	113	4	2
Wyoming	389	31	0	0

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School Sampling Frame and Adjusted Sampling Frame," 2003–04.

Weighted estimates of schools from table K-3 provide an estimate of the expected amount of collapsing. This was compared to table K-4 to determine which set of rules most closely reflected the expected amount of collapsing. Generally, it was determined that the relaxed rules provided a more accurate prediction of which schools were likely to need collapsing.

For the states in table K-5, no comparison to 1999–2000 SASS edit rejects was produced. Census Bureau staff simply compared the amount of collapsing with the size distribution to judge whether collapsing was likely to improve CCD as a sampling frame.

A comparison of tables K-3 and K-4 shows that application of the relaxed collapsing rules had a clear benefit in Montana, Oklahoma, Nebraska, North Dakota, South Dakota, Arkansas, Iowa, and Missouri. Additionally, in Minnesota, the expected “improvement” based on 1999–2000 SASS results was greater than the expected deterioration (i.e., the number of larger schools collapsing). Consequently, it was recommended to apply the relaxed rules to Minnesota as well. In Wisconsin, the expected deterioration was substantial and the expected improvement was minimal, so it was recommended to apply the restricted rules.

A review of table K-5 shows that more than half of the collapsed records in New York, New Jersey, and Pennsylvania had a student enrollment of 750 or more, so it was believed that they should not legitimately be collapsed. Since more than half were large schools, the expected amount of deterioration exceeded the expected amount of improvement, so no collapsing was implemented in these states. In several other states, the collapsing appeared to have been of dubious value, but the volume of collapsing was so small that the potential deterioration was minimal. As a result, it was recommended to apply the restricted rules to these states.

### **Collapsing Results from the 2003–04 Sampling Frame**

Of the 2,344 collapsed schools remaining on the sampling frame, 576 were selected for sample. All sampled schools were asked about the grade range they provided. Using the check on grade range as a measure of whether the collapsing succeeded in correctly creating a school entity for which the respondent would recognize and report, it appeared the collapsing succeeded in 460 sampled schools and failed in 116 (79.9 percent success rate). In addition, there appeared to be 28 sampled schools that should have been collapsed but were not.

Schools where the collapsing was applied incorrectly were split into their component schools, as they appeared on CCD originally, and one component school was selected randomly to be the sampled school. The inverse of the probability of selection (base weight) was adjusted appropriately to reflect this subsampling. Schools that should have been collapsed but were not were allowed to report as they perceived themselves and their weights were adjusted for their multiple chances of selection.

A preliminary analysis of the 116 schools that should not have been collapsed revealed no clear pattern or cause for the collapsing failure. In some states where the relaxed rules for collapsing were applied, it appeared that the more restricted rules should have been applied. In most cases it appeared that the phone number match should have been a requirement. A detailed breakdown of the collapsing results by state is presented in table K-6.

**Table K-6. Collapsing results, by state: 2003–04**

State	Number of collapsed schools in sample	Number of schools erroneously collapsed in sample	Percentage failure	Number of collapsed schools missed	Number missed as a percentage of proper collapsing
Total	576	116	20.1	28	5.7
Alabama	1	1	100.0	1	100.0
Alaska	3	0	0.0	0	0.0
Arizona	7	5	71.4	2	50.0
Arkansas	36	21	58.3	0	0.0
California	5	1	20.0	0	0.0
Colorado	10	2	20.0	2	20.0
Connecticut	3	0	0.0	0	0.0
Delaware	1	0	0.0	0	0.0
Florida	1	0	0.0	0	0.0
Georgia	3	1	33.3	0	0.0
Idaho	6	0	0.0	1	14.3
Illinois	12	2	16.7	1	9.1
Indiana	2	1	50.0	0	0.0
Iowa	26	4	15.4	0	0.0
Kansas	17	1	5.9	1	5.9
Kentucky	8	0	0.0	0	0.0
Maine	2	0	0.0	0	0.0
Michigan	2	0	0.0	1	33.3
Minnesota	34	12	35.3	2	8.3
Missouri	29	12	41.4	0	0.0
Montana	57	5	8.8	1	1.9
Nebraska	35	5	14.3	3	9.1
Nevada	2	0	0.0	0	0.0
New Hampshire	13	2	15.4	0	0.0
New Mexico	22	3	13.6	2	9.5
New York	0	0	†	1	100.0
North Carolina	1	0	0.0	0	0.0
North Dakota	39	0	0.0	0	0.0
Ohio	4	2	50.0	1	33.3
Oklahoma	79	19	24.1	0	0.0
Oregon	3	0	0.0	0	0.0
Pennsylvania	0	0	†	3	100.0
South Carolina	1	0	0.0	0	0.0
South Dakota	61	4	6.6	2	3.4
Texas	12	7	58.3	1	16.7
Utah	1	0	0.0	0	0.0
Vermont	1	0	0.0	0	0.0
Washington	4	1	25.0	1	25.0
Wisconsin	18	3	16.7	2	11.8
Wyoming	15	2	13.3	0	0.0

† Not applicable.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School Sampling Frame and Adjusted Sampling Frame," 2003–04.

## 2003–04 SASS School Allocation Procedure

This section discusses how the school sample was allocated to public and private school strata in SASS. Generally the allocation is done in a way that provides reasonable precision for all components of SASS while meeting a variety of estimation goals for each component. The estimation goals are described in chapter 1.

### Public Schools

The public school allocation was done according to the following priorities:

1. The total public school sample size in the 2003–04 SASS contained 9,374 regular schools, 166 Bureau of Indian Affairs-funded schools, 450 high American Indian or Alaska Native enrollment schools, and 300 public charter schools.
2. There were 450 sampled schools allocated to the high American Indian or Alaska Native enrollment schools and 300 sample schools allocated to public charter schools proportional to the sum of the square root of the number of teachers per strata. Additional requirements of 150 elementary and secondary schools with high American Indian or Alaska Native enrollment and at least 80 public charter schools per grade level were imposed.
3. The remaining 9,374 schools were allocated to the regular schools in two different ways. This was done because of the increased number of combined schools in the sampling frame due to the collapsing procedure outlined in the section on defining public schools by their physical location in this appendix. The two methods used are listed below:
  - *Proportional to the 1999–2000 SASS unit standard error for the number of schools in each stratum by state.* This allocation method would achieve optimum results for national estimates.
  - *Proportional to the sum of the square root of the number of teachers per strata.* This allocation method allowed for an increase in the number of sampled combined schools to match the increase in the number of combined schools in the frame.
4. The following adjustments were made to the results of both allocation methods:
  - increased the combined school sample size in Alaska to approximate the sampling rate for schools with high American Indian or Alaska Native enrollment;
  - increased the combined sample size to approximate the overall state sampling rate;
  - compared the adjusted sample sizes against the minimums of 80 sampled schools for elementary and secondary and 20 for combined, and replaced the sample size with the minimum if necessary; and
  - compared the adjusted sample sizes against the total number of schools per strata. If the sample was more than 60 percent of the total, then it was adjusted down to 60 percent of the total.
5. Many of the original sample sizes were adjusted in the above steps; the ones that were not adjusted were reallocated according to the original allocation method.
6. The final results of the allocation methods were then compared and if there were major discrepancies between the two in a specific stratum, the average was determined and assigned as the final sample size.

## Private Schools

The private school sample size selected from the list frame was 3,443 schools. The goal was to select an overall sample of 3,420 private sample schools from the list frame. The allocation process consisted of the steps below:

1. First, the sample was allocated at the affiliation level. The overall sample of 3,420 schools was allocated among 17 private school affiliations, proportional to the measure of size equal to the square root of the total number of teachers as the initial sample sizes. (NOTE: The 2003–04 SASS included 17 groups rather than the 20 used in the 1999–2000 administration, as described in chapter 4.)
2. Next, a sample size of 100 was assigned to all affiliations that were assigned an initial sample size less than 100, and the remaining sample was redistributed proportionally among the remaining affiliations.
3. Next, the sample was allocated at the stratum level. Within affiliation, the sample size was allocated at the stratum level proportional to the measure of size.
4. Finally, a sample size of two was assigned to all strata with initial sample sizes less than two, and the remaining sample was redistributed proportionally among the remaining strata.

## Documentation of the Sort Selection for the 2003–04 SASS Public and Private School Sampling

As part of the 2003–04 SASS sample design process, it was determined that the current sample sort order for both public and private schools should be evaluated and possibly improved.

### Methodology

Bootstrap variance programs developed by the National Center for Education Statistics (NCES) (discussed in greater detail in chapter 9) were used to generate the total covariance and finite population correction (FPC) factors of a particular sample using a specified sort order. The 1999–2000 SASS sample sort (sort #1) was used as a standard in both the public and private results. The 1999–2000 SASS sample sort with a serpentine sort in the enrollment portion for both the public and private schools (sort #2) was also tried. In theory, this serpentine sort should reduce the number of extreme covariances as well as the maximum FPC, since it should provide better control over the size distribution of the schools selected for the sample. The locally random FPC, which is the FPC computed across small increments of the sample, can be larger than one. As a result, it is important to design a survey in which this is not a problem with respect to the variance estimates, since this condition could result in the computation of negative variances. The following sample sort orders were tried:

For public schools—

1. stratum, state, urbanicity, ZIP code, LEA ID, descending high grade, percent minority, and descending enrollment;
2. stratum, state, urbanicity, ZIP code, LEA ID, descending high grade, percent minority, and enrollment in serpentine sort;
3. stratum, urbanicity, LEA ID, descending high grade, percent minority, and descending enrollment;

4. stratum, ZIP code, urbanicity, descending high grade, and descending enrollment; and
5. stratum, descending high grade, urbanicity, enrollment in serpentine sort, school ID.

For private schools—

1. stratum, state, descending high grade, urbanicity, ZIP code, descending enrollment, and school ID.
2. stratum, state, descending high grade, urbanicity, ZIP code, serpentine enrollment, and school ID.
3. stratum, typology, state, descending high grade, urbanicity, ZIP code, descending enrollment, and school ID. and
4. stratum, religious orientation, state, descending high grade, urbanicity, ZIP code, descending enrollment, and school ID.

## Results

The various sorts were evaluated by determining a sample sort order that produced the smallest number of extreme positive and negative covariances and the lowest maximum FPC. Since the variance estimator for SASS assumes that the relative covariance is zero, a large positive covariance will considerably underestimate the variance, while a large negative covariance will overestimate it. These extremes also result in more unreliable estimates. The results shown in tables K-7 and K-8 were used in the determination of the 2003–04 SASS sample sort.

**Table K-7. Results for sort research in SASS public school sampling: 2003–04**

Sort	Maximum FPC	Number of negative extreme covariances (less than -20 percent)	Number of positive extreme covariances (greater than 20 percent)
#1	1.3333	45	3
#2	1.4444	45	3
#3	1.8125	50	2
#4	2.0555	53	2
#5	1.5714	54	3

NOTE: FPC refers to finite population correction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), “Public School Sampling Frame,” 2003–04.

It is not immediately clear from the results above which sort order is the best. For example, public school sorts #1 and #2 seemed to be almost identical, but there were certain states (Delaware and Hawaii) that had very large positive covariances using the first sort. The second sort reduced these covariances slightly without changing the overall effect. The last three public school sorts clearly produced much worse results than sort #2. The slightly larger maximum FPC produced by sort #2 was accepted in return for smaller covariances in Delaware and Hawaii.

**Table K-8. Results for sort research in SASS private school sampling: 2003–04**

Sort	Maximum FPC	Number of negative extreme covariances (less than -20 percent)	Number of positive extreme covariances (greater than 20 percent)
#1	1.1818	7	0
#2	1.3333	17	0
#3	1.3333	9	0
#4	1.2750	10	0

NOTE: FPC refers to finite population correction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), “Private School Sampling Frame,” 2003–04.

From the results above, the first sort produced the best results. The third sort also generated reasonable results but since it used an outdated definition of typology as one of the sort keys, it was discarded.

## Controlling the School Overlap with ELS

This section of the appendix describes how the original 2003–04 SASS selection probabilities were adjusted so that the expected number of schools overlapping between the 2003–04 SASS and the 2003–04 follow-up of ELS:2002 was minimized without changing a school’s overall selection probability for the 2003–04 SASS. To do this required knowledge of the 2003–04 SASS and ELS selection probabilities for all schools in the frame. The 2003–04 SASS school sampling selection was dependent upon ELS.

The details of this process are described below. The required terminology and sets of schools are defined first. Next, the various conditional selection probabilities are presented. Selecting the 2003–04 SASS sample with these conditional probabilities maintained the original 2003–04 SASS school selection probabilities, while controlling the expected overlap.

### Terminology

$EN$ : the ELS sample

$S_2$ : 2003–04 SASS sample

$i$ : school

$P_{hi}(EN)$ : probability of selecting school  $i$  from stratum  $h$  in ELS.

$P_{hi}(S_2)$ : probability of selecting school  $i$  from stratum  $h$  in the 2003–04 SASS.

$P_{hi}(S_2 | EN)$ : probability of selecting school  $i$  from stratum  $h$  in 2003–04 SASS given that this school was selected for ELS.

$P_{hi}(NEN)$ : probability of not selecting school  $i$  from stratum  $h$  in ELS.

$P_{hi}(S_2 | NEN)$ : probability of selecting school  $i$  from stratum  $h$  in the 2003–04 SASS given that this school was not selected for ELS.

### Conditional Selection Probabilities

Since the goal was to minimize the overlap with ELS, conditional probabilities of selection for 2003–04 SASS could be defined according to the following formulae:

$$P_{hi}(S_2 | EN) = 0 \quad \text{if} \quad P_{hi}(EN) + P_{hi}(S_2) \leq 1$$

$$P_{hi}(S_2 | EN) = \frac{P_{hi}(EN) + P_{hi}(S_2) - 1}{P_{hi}(EN)}, \quad \text{if} \quad P_{hi}(EN) + P_{hi}(S_2) > 1$$

$$P_{hi}(S_2 | NEN) = \frac{P_{hi}(S_2)}{1 - P_{hi}(EN)}, \quad \text{if} \quad P_{hi}(EN) + P_{hi}(S_2) \leq 1$$

$$P_{hi}(S_2 | NEN) = 1 \quad \text{if} \quad P_{hi}(EN) + P_{hi}(S_2) > 1$$

It can be verified that these conditional selection probabilities preserved the original 2003–04 SASS selection probabilities,  $P_{hi}(S_2)$ , while the expected overlap between 2003–04 SASS schools and ELS was minimized.

## Investigation of School District Variances for 2003–04 SASS

As part of the 1987–88 SASS, it was determined that the school district variances were unreasonably high for a few states where the sampling rate was close to, but just short of, one. Upon investigation, it was decided that in three states the school sampling procedure should be altered to force all districts in the state to fall into sample. These three states were Delaware, Nevada, and West Virginia. Based on the results of the 1999–2000 SASS, the school district variance investigation was repeated.

### Methodology

The bootstrap variance estimation software as developed by NCES (as discussed in more detail in chapter 9) was used to generate variance estimates for a select group of states assuming the current school district sampling methodology as applied to all states excluding the three states mentioned above. Comparisons of these variances to simple random sample variances were made to try to determine how well each state performed as compared to the other states. From this, design effects could be calculated and comparisons of coefficients of variation (unadjusted for the finite population correction) were made.

The states examined were Alaska, Florida, Louisiana, Maryland, New Mexico, Rhode Island, Utah, and Wyoming.

Delaware, Nevada, West Virginia, Illinois, and Vermont were used as benchmark states. Delaware, Nevada, and West Virginia were already part of the special sampling operation, and their results helped to identify other states with high district sampling variances. Illinois and Vermont were chosen as benchmark states because they had many school districts and reasonable variances.

Variances were generated for estimates of the total number of districts in the state and the total enrollment in the state.

### Results

West Virginia had the highest sampling variances for the examined estimates, with Delaware and Nevada a distant second and third. Maryland and Florida had only slightly lower variances than these three states. One of the benchmark states, Illinois, performed only slightly better than these five states. The other states of interest performed better than Illinois.

As a result, it was decided to continue the special sampling operation for Delaware, Nevada, and West Virginia and to add Florida and Maryland to the special sampling operation.

## References

Hoffman, L.M. (2002). *Overview of Public Elementary and Secondary Schools and Districts: School Year 2000–01* (NCES 2002–356). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

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# Appendix L. Report on Results of Special Contact Districts

## Background

School districts can approve or reject the Schools and Staffing Survey (SASS) on behalf of the schools that they control. Therefore, securing the approval of these districts is essential to the success of SASS. In past years, many districts indicated that formal approval from the district was required before they would allow schools to participate in SASS. Often this approval process required months to complete, making it difficult to obtain approval during the SASS data collection period.

For the 2003–04 administration of SASS, the National Center for Education Statistics (NCES) and Education Statistics Services Institute (ESSI) attempted to identify and contact districts with a formal approval process well ahead of data collection in order to secure this approval. NCES and ESSI identified 77 sampled districts that required prior approval to conduct surveys with schools in their district based on past administrations of SASS and other NCES sponsored surveys. The districts were referred to as “special contact districts” for this administration of SASS. Thirty-one special contact districts were also deemed “critical” districts because they had a disproportionate impact on state-level estimates. Without participation from schools in these districts, state-level estimates would be in jeopardy. The 77 districts included a total of 850 schools that were considered in-scope for SASS.

## Methods

NCES and ESSI began contacting districts in February 2003. The purpose of the initial contact was to identify a contact person at the district and to determine what requirements needed to be satisfied before the district would approve administration of SASS. Generally, districts required either research applications or research proposals. Often these applications requested background on the study, information on the sampling plan, instruments to be administered, school resources required, and a plan for protecting the confidentiality of data. For districts that had research requirements, applications and proposals were prepared by NCES and ESSI staff based on information obtained during the initial contact with the district. The applications were submitted directly to the district by NCES and ESSI.

NCES and ESSI staff developed a tracking sheet that listed each of the special contact districts and provided a description of their research requirements, contact names, and the initial and final outcome of contact with the district. This spreadsheet was updated and sent regularly to the Census Bureau to inform the field-based operation. When the SASS data collection began, field representatives did not attempt to contact schools within those special contact districts that had not yet agreed to participate in SASS. On October 16, 2003, NCES turned responsibility for gaining approval of the remaining 41 special contact districts to Census Bureau Regional Office staff. Since Regional Office staff members are physically closer to the districts, it was felt that they could attempt to meet with district staff in person and gain participation in SASS. For nonresponding districts, field representatives attempted to contact schools directly.

## Findings

Forty-three of the special contact districts required a formal application in order to approve research at their schools. Among the remaining districts that did not have a formal application, most required a written proposal to the superintendent. These proposals generally needed to include the same information as the formal applications.

By October 16, 2003, some 29 districts approved their participation in SASS, 7 districts did not grant permission to conduct the survey, and the remaining 41 districts neither approved nor denied participation. Census Bureau Regional Office staff and field representatives began contacting the districts after this date. Staff utilized various resources including a Partnership Specialist (Regional Office staff trained to work with community leaders and researchers), letters from the Regional Census Director, and personal contacts to obtain permission for SASS in the special contact districts. By the end of the field period, only two special contact districts had no complete Teacher Listing Forms or complete public school questionnaires from sampled schools in their district. Neither of the refusal districts were critical districts, meaning that their nonresponse would not have a disproportionate impact on state estimates. Out of the 850 schools in special contact districts, 673 completed Teacher Listing Forms and 588 completed school questionnaires.

The response rate of schools in the special contact districts was lower than the overall public school response rate for the Teacher Listing Form and school questionnaire. This may be attributed to two factors:

- Field work on these cases began in late October rather than early October as it did for regular cases.
- Many of these districts were difficult responders during previous SASS administrations.

The response rate comparison is shown in table L-1.

**Table L-1. Response rate comparison between in-scope schools in special contact districts and all in-scope public schools, by selected questionnaires: 2003–04**

Questionnaire	Special contact response rate (percent)	Overall public school response rate (percent) <sup>1</sup>
Teacher Listing Form	79	89
School Questionnaire	69	82

<sup>1</sup> Overall response rate includes schools in special contact districts.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), “Public School Documentation Data Files,” 2003–04; *Documentation for the 2003–04 Schools and Staffing Survey*, Schools and Staffing Survey (SASS), 2003–04.

## Recommendations

The special contact methodology was highly successful at gaining cooperation from districts that required formal permission to conduct surveys with their schools. Regional Office staff were able to obtain permission from the majority of districts to conduct SASS and should be brought into the process once the survey sample is selected.

## Appendix M. School District Experiment Findings

An earlier version of the paper contained in this appendix was presented at the American Association for Public Opinion Research Conference on May 13, 2005. It provides details on a test embedded in this administration of SASS to better understand how districts respond to precontact operations and what implications this has on the cost and timing of the SASS. It is organized as follows.

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## **Too Much of a Good Thing? Working Through Establishment Gatekeepers**

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U.S. Bureau of the Census

### **Abstract**

In establishment surveys, gatekeepers often prevent interviewers from reaching the sampled person. Many surveys have developed methods to get around gatekeepers or enlist them as agents in the survey process. Often these efforts target an individual. For the Schools and Staffing Survey (SASS), school districts function as gatekeepers for the schools under them. Three scenarios were anticipated for the 2003–04 SASS: (1) if a district was contacted before the school and gave permission to conduct SASS, it could increase overall response rates; (2) if a district was contacted before the school and refused to participate, it could lower overall response rates; and (3) if districts were not contacted before the school, schools could request district permission to participate, delaying completion of the survey and increasing costs. In order to determine the best way to handle district contacts, an experiment was conducted in three Census Bureau Regional Offices. Approximately half of the school districts in each office were contacted by phone several months before the survey was conducted to discuss the survey and any information they would need before approving the survey. If information or formal application was required, it was prepared and sent to the district shortly after the call. In the other half of districts, a standard prenotice letter was sent to the district at the start of data collection. This paper reports on the impact on school response under those scenarios and makes recommendations for handling establishment gatekeepers.

### **Background**

The Schools and Staffing Survey (SASS) is the nation's largest sample survey of K–12 schools. It is sponsored by the National Center for Education Statistics (NCES) and conducted by the U.S. Census Bureau. SASS is unique in that it collects data from public and private schools, principals, and teachers as well as public school districts and libraries. SASS links these units, allowing researchers to gain a complete picture of K–12 education in the United States. Previous SASS surveys were conducted during the 1987–88, 1990–91, 1993–94, and 1999–2000 school years. In each of these years, SASS followed a relatively traditional mixed mode approach. Sampled schools and districts were sent a prenotice letter, followed by questionnaires. Nonresponders received reminder postcards and a second questionnaire. Next Census Bureau staff attempted to interview nonrespondents by telephone. Finally, field representatives were sent to interview any remaining nonresponders. The 2003–04 SASS consisted of nine self-administered questionnaires (School District Questionnaire, School Library Media Center Questionnaire, Principal Questionnaire, Private School Principal Questionnaire, School Questionnaire, Private School Questionnaire, Unified School Questionnaire, Teacher Questionnaire, and Private School Teacher Questionnaire) and one interviewer-administered questionnaire (Combined School Screener/Teacher Listing instrument).

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<sup>1</sup> The authors wish to thank Kerry Gruber and Lynn Zhao at the National Center for Education Statistics and Deanna Lyter and Greg Strizek at the Education Statistics Services Institute for their assistance in this research. Additionally, the authors thank Zoe Dowling at the U.S. Census Bureau for reviewing drafts of the paper and providing insightful comments.

DISCLAIMER: This report is released to inform interested parties of ongoing research and to encourage discussion of work in progress. The views expressed are the authors' and not necessarily those of the U.S. Census Bureau.

School districts (Local Education Agencies) are critical to conducting SASS in public schools. Since districts typically have more than one school in SASS, a refusal at the district level can affect multiple school, principal, teacher, and library media center questionnaires as well as the district questionnaire response rate. In past SASS administrations, the district was informed about SASS by mail at the same time the schools were asked to participate. This had the unintended consequence of allowing schools to participate before the district refused or schools refusing before the district had a chance to support administration of the survey. In order to reduce the time required to collect and process SASS data, it was decided to pursue a field-based methodology for the 2003–04 collection of the school-level questionnaires. This methodology utilized field representatives to drop off and pick up the self-administered questionnaires rather than relying on a postal mailout. In addition, the Teacher Listing Form (used to collect the sample frame of teachers) was converted from a paper self-administered questionnaire to an interviewer-administered instrument. The district questionnaire remained a mailout/mailback questionnaire with in-person nonresponse follow-up. In switching to a field-based methodology, there were two concerns for district participation in SASS:

- impact on school participation; and
- response rate to the district questionnaire.

Three potential outcomes were anticipated as a result of switching to a field-based methodology:

- If a district was contacted before the school and gave permission to conduct SASS, it could increase overall response rates.
- If a district was contacted before the school and refused to participate, it could lower overall response rates.
- If districts were not contacted before the school, schools could request district permission to participate, delaying completion of the survey and increasing costs.

The primary goal of switching to a field-based methodology was to shorten the time required to conduct SASS. Given this goal, there was concern about the impact of districts giving schools approval to participate in SASS on the schedule and response rate. In order to understand the impact of precontacting districts on response rates, an experiment was conducted with a subsample of schools and districts during the 2003–04 SASS.

## Methods

Three Census Bureau Regional Offices (Seattle, Chicago, and Boston) were selected to participate in this experiment. All of the districts in these offices, except those with known processes for survey approval, were assigned to either the test or control group. Table M-1 shows the number of districts and schools in each of the groups. Those in the test group were referred to as “Test Group Districts.” These districts were called during July 2003 from the Census Bureau’s Hagerstown Telephone Center. The telephone interviewers were provided background information on SASS but were not told the nature of the experiment. Telephone interviewers called the districts and followed a script (attachment M-1) to determine if they had any research requirements or paperwork that had to be completed before a field representative visited their schools. If the districts indicated that they had research requirements, they were asked for specific information regarding the type of requirement. NCES and its contractor, the Education Statistics Services Institute, prepared a package to address the requirements. Generally, this package contained blank SASS questionnaires, detailed information on the survey including sample design, methodology, and sample reports. At the end of the call, districts were asked for the name of a contact person to whom the district questionnaire should be addressed. The districts assigned to the control group were called by the Hagerstown Telephone Center during August 2003. These districts were

asked only for the name of a contact person for the district questionnaire. (Attachment M-2 is a sample interview script.)

**Table M-1. Unweighted counts of schools and districts, by group: 2003–04**

Group	District sample size	School sample size
Control	665	1,164
Treatment	667	1,122

SOURCE: *School District Experiment Findings*, U.S. Census Bureau, 2005.

In October 2003, districts were sent a prenotice letter regarding SASS. Test districts received a letter letting them know that data collection was starting. (See attachment M-3.) Districts in the control group (as well as those not in the experiment) received a prenotice letter informing them about SASS. (See attachment M-4.) At the same time, each of the sample schools received a standard prenotice letter. (See attachment M-5.)

All field representatives were told that the districts had been notified about SASS and in cases where the districts explicitly approved SASS, they were provided with the letter of approval from the district. Field representatives from Regional Offices participating in the study were instructed to keep a log (attachment M-6) of each contact with a sampled school related to the Teacher Listing instrument, School Questionnaire, and Private School Questionnaire. Even though the research questions related only to public schools, the field representatives were instructed to keep logs for public and private schools in order to keep the study “blind.” Field representatives were told that these logs would be used to look at the number and type of contacts required to complete SASS and that individual performance would not be evaluated based on the logs.

The 2003–04 SASS used a mixed mode approach to obtain information from schools. First, field representatives contacted schools by telephone and, utilizing a computerized instrument, administered a series of screening questions to verify that they had reached the correct institution and that the institution met the SASS criteria for a school. Once this information was verified, the interviewer followed a script to identify a contact person at the school and set up an appointment to visit the school. At this appointment, the field representative used the computerized instrument to enter a list of all teachers at the school. The instrument then selected a sample of teachers to complete the teacher questionnaire. At this time, the field representative distributed the remaining SASS questionnaires (school, teacher, and principal). The field representative’s log was used to monitor all contact with the school needed to complete both the computerized Teacher Listing instrument and the school questionnaire.

The final total weighted response rates for the treatment and control groups were calculated at the end of data collection. The formula used to calculate the weighted response rates ( $r$ ) was:

$$r = \frac{\sum \text{interviews} * \text{basic weight}}{\sum \text{total number of respondents eligible for interview} * \text{basic weight}}$$

The variance associated with these response rates was calculated using the following formula:

$$\frac{1}{n} \sum_{i=1}^n (r_i - \bar{r})^2, \text{ where } r_i \text{ is the replicate weighted response rate.}$$

The replicates were formed using a bootstrap variance methodology. Also, two more estimates were computed for the treatment and control groups, as well as the interviews and noninterviews: the weighted

average number of visits and the weighted average time spent with each school. The variances associated with these estimates were calculated using the same basic formula as for the response rate variance with the appropriate averages and replicates used. The response rates, the average number of visits, and average time estimates for the treatment and control groups were compared against each other and tested at the 5 percent significance level.

**Findings**

Of the 667 districts in the treatment group, 3 refused any contact with the Census Bureau representative during the calling operation, and 2 districts could not be contacted. (These 2 were likely closed for the summer.) Four hundred fifty-six districts requested some type of follow-up prior to granting permission to conduct SASS in their schools. Of these, more than half (255) requested a formal proposal or detailed overview of the research. A smaller number (110) requested a brief description of the research. The remaining districts indicated that a representative from the Census Bureau need only contact them a couple of days before an interviewer visited schools in their district. NCES and Education Statistics Services Institute staff followed up with those districts requesting more information by sending a proposal to 255 districts, and a long letter describing SASS to 110 districts. The remaining districts received a standard prenotice letter that thanked them for agreeing to participate in SASS and provided a brief overview of the survey. After receiving the follow-up materials, eight districts responded to Census with a formal approval to conduct SASS in their schools. (This approval came in the form of a fax, letter, or e-mail.) Thirty-three districts did not approve SASS, and 415 districts did not respond to the materials that were sent.

**Does Precontacting the District Impact Response to the District Questionnaire?**

Table M-2 shows that efforts to precontact the district had no impact on the final response rate for the district questionnaire.

**Table M-2. Comparison of weighted response rates for district questionnaire, by group: 2003–04**

Group	District questionnaire response rate		P value
	Percent	Variance	
Control	79.3	0.001	.534
Treatment	76.1	0.001	

SOURCE: *School District Experiment Findings*, U.S. Census Bureau, 2005.

Table M-3 shows that the type of information requested by the district did not impact its response rate to the district questionnaire. So providing more information to the district did not improve the likelihood that it would respond to the district questionnaire.

**Table M-3. Comparison of weighted response rates for district questionnaire, by type of follow-up required: 2003–04**

Type of follow-up required	District questionnaire response rate		Comparison	P value
	Percent	Variance		
Proposal (1)	69.7	0.003	1 vs. 2	.182
Full letter (2)	81.6	0.004	1 vs. 3	.400
Prenotice letter (3)	78.2	0.006	1 vs. 4	.240
No follow-up required (4)	75.8	0.002	2 vs. 3	.739
			2 vs. 4	.699
			3 vs. 4	.966

SOURCE: *School District Experiment Findings*, U.S. Census Bureau, 2005.

Table M-4 shows that some response rate differences emerge within the treatment group. Not surprisingly, districts that approved schools under them participating in SASS were more likely to complete the district questionnaire than the districts that denied the request to conduct SASS. The response rates of the districts that approved SASS participation (80.2 percent) and those that did not respond to the request (76.9 percent) were significantly higher than those of the districts that denied participation (36.6 percent). NOTE: Districts that did not formally respond were treated as having approved participation in the follow-up materials.

**Table M-4. Comparison of weighted response rates for district questionnaire, by outcome of request for permission to conduct SASS at district schools: 2003–04**

Outcome of request	District questionnaire response rate		Comparison	P value
	Percent	Variance		
Approved SASS (1)	80.2	0.001	1 vs. 2	<.001 <sup>1</sup>
Denied SASS (2)	36.6	0.009	2 vs. 3	<.001 <sup>1</sup>
No response (3)	76.9	0.001	3 vs. 1	.581

<sup>1</sup> Significant at the 95 percent confidence interval.

SOURCE: *School District Experiment Findings*, U.S. Census Bureau, 2005.

**Does Precontacting the District Impact Response Rates for Schools?**

As mentioned before, response was tracked for two school-level forms: the initial Teacher Listing Form and the subsequent school questionnaire. Overall, the response rate was higher for the interviewer-administered Teacher Listing Form than the self-administered school questionnaire. However, table M-5 shows that there was no significant difference between the treatment and control groups on initial response rate.

**Table M-5. Comparison of weighted response rates for Teacher Listing Form and school questionnaire, by group: 2003–04**

Group	Teacher Listing Form response rate		P value	School questionnaire response rate		P value
	Percent	Variance		Percent	Variance	
Control	87.2	<0.001	.460	81.4	<0.001	.690
Treatment	88.6	<0.001		80.6	<0.001	

SOURCE: *School District Experiment Findings*, U.S. Census Bureau, 2005.

Table M-6 shows that the impact of the different types of follow-up (letter, proposal, etc.) from NCES on the school-level response rate was minimal. Districts that required no follow-up had a significantly higher response rate on the Teacher Listing Form than those requiring a proposal or a prenotice letter. The school response rate was only significantly lower for schools in districts that requested a proposal compared to those that had no follow-up required.

**Table M-6. Comparison of weighted response rates for Teacher Listing Form and school questionnaire, by type of follow-up required: 2003–04**

Type of follow-up required	Teacher Listing Form response rate		Comparison	P value	School questionnaire response rate		Comparison	P value
	Percent	Variance			Percent	Variance		
Proposal (1)	86.9	<0.001	1 vs. 2	.745	78.5	<0.001	1 vs. 2	.939
Full letter (2)	85.1	0.002	1 vs. 3	.694	78.1	0.003	1 vs. 3	.713
Prenotice letter (3)	88.2	<0.001	1 vs. 4	.002 <sup>1</sup>	80.2	0.001	1 vs. 4	.020 <sup>1</sup>
No follow-up required (4)	94.6	<0.001	2 vs. 3	.584	86.4	<0.001	2 vs. 3	.749
			2 vs. 4	.072			2 vs. 4	.167
			3 vs. 4	.027 <sup>1</sup>			3 vs. 4	.160

<sup>1</sup> Significant at the 95 percent confidence interval.

SOURCE: *School District Experiment Findings*, U.S. Census Bureau, 2005.

Table M-7 shows that within the treatment group, the response from the district had minimal impact on the schools’ decision to respond. In fact, the only significant difference in response occurs on the Teacher Listing Form when comparing schools in districts that approved SASS with schools in districts that did not respond to the follow-up materials.

**Table M-7. Comparison of weighted response rates of treatment group cases for Teacher Listing Form and school questionnaire, by outcome of district precontact: 2003–04**

Outcome of district precontact	Teacher Listing Form response rate		Comparison	P value	School questionnaire response rate		Comparison	P value
	Percent	Variance			Percent	Variance		
Approved (1)	94.5	<0.001	1 vs. 2	.206	86.2	<0.001	1 vs. 2	.664
Denied (2)	89.1	0.001	1 vs. 3	<.001 <sup>1</sup>	83.2	0.004	1 vs. 3	.009 <sup>1</sup>
No response (3)	86.5	<0.001	2 vs. 3	.976	78.3	<0.001	2 vs. 3	.956

<sup>1</sup> Significant at the 95 percent confidence interval.

SOURCE: *School District Experiment Findings*, U.S. Census Bureau, 2005.

Interestingly, the district’s decision to complete the district questionnaire seemed to have a greater impact on the school’s response rate. Table M-8 shows the response rate for the school questionnaire by the district’s response to the district questionnaire.

**Table M-8. Comparison of weighted school response rates, by district response to district questionnaire: 2003–04**

Status of district questionnaire	School response rate		P value
	Percent	Variance	
Completed	84.1	<0.001	<.001 <sup>1</sup>
Refused	71.2	<0.001	

<sup>1</sup> Significant at the 95 percent confidence interval.

SOURCE: *School District Experiment Findings*, U.S. Census Bureau, 2005.

**Does Precontacting the District Reduce Time or Number of Contacts Required to Complete the School Questionnaire?**

Interviewers in the three Regional Offices participating in the study were asked to keep a log of all contact they had with sampled schools and districts related to completing the Teacher Listing Form and school questionnaire. Compliance with this procedure was generally low. For schools in the experiment, 69.9 percent had logs. Many of the logs contained missing data on time and type of contact (phone vs. in

person). Analysis reported below is based on the schools from which contact logs were received. Where contact time data were missing (12 percent of contacts), it was imputed with the average for the type of contact (phone vs. in person). Where both contact type and time were missing (4 percent of cases), average contact time across both contact types was imputed.

Table M-9 shows that the number of contacts required to complete the two school-level forms was not impacted by precontacting an individual school's district office.

**Table M-9. Comparison of weighted average number of field representative contacts with a school, by group: 2003–04**

Group	Contacts with a school		P value
	Average number	Variance	
Control	7.11	0.177	.728
Treatment	6.91	0.153	

SOURCE: *School District Experiment Findings*, U.S. Census Bureau, 2005.

Table M-10 shows that the average amount of time spent by field representatives to complete the two school-level forms was equivalent for the treatment and control groups.

**Table M-10. Comparison of weighted average minutes spent by field representatives contacting schools, by group: 2003–04**

Group	Minutes spent contacting schools		P value
	Average number	Variance	
Control	273.74	263.57	.453
Treatment	293.02	398.13	

SOURCE: *School District Experiment Findings*, U.S. Census Bureau, 2005.

## Discussion

Prior experience conducting SASS heightened our concern about the impact of the school district's decision on the school's response rate. Schools often cite district policies and research procedures as a reason not to participate in SASS. In this study we looked at the relative impact of providing more information to districts prior to the start of the survey. Our hope was that this would facilitate data collection by allowing field representatives to allay school respondent's concerns on their first contact. At the same time, we were concerned that increasing our contact with the districts would increase their opportunities to refuse the survey on behalf of their schools. Results of the study indicate that additional contacts had no impact on the overall response rates of schools or districts to the survey. At the same time, precontacting the districts and providing the additional information they requested required significant resources in time and money. A number of factors may explain the inability of this contact to change response patterns. During the call to district offices, the telephone interviewer asked to speak with someone who was knowledgeable about the district's research policies. It is possible that the person they spoke with was not the decisionmaker. This is supported by the fact that some districts that refused on the telephone completed the SASS questionnaire when it was mailed to the district office. Additionally, in many of the districts that reported having formal research requirements, the request had to be approved by a committee rather than an individual.

There were indications from the research that schools function somewhat autonomously from their districts. Schools will still make their own decision about participating even when the district refuses. Forty-nine schools in districts that denied our request to participate in SASS completed the questionnaire.

A total of 415 schools completed SASS in districts that refused to complete the district questionnaire. In past SASS surveys, the requirements for district approval were often given over the telephone. It is possible that this was a delaying tactic used by the school-level gatekeeper. However, it may be possible that when the interviewer was present at the school, this reason was no longer viable. Out of the entire SASS survey (across all Regional Offices) only 60 Teacher Listing Form cases were coded out as a district refusal. Of these, just over half (33) occurred in Regional Offices that were not part of the experiment. Only 18 of the district refusals came from the three regions involved in the study. This would seem to indicate that a school-level gatekeeper exerts more influence on the decision to participate than the school district. To more fully understand the role of the school gatekeeper, we will be conducting a study that focuses efforts on them. During the fall of 2005, Census Bureau staff will test the effectiveness of procedures to convert school-level gatekeepers into survey coordinators using incentives and other conversion techniques.

## Attachment M-1. Telephone Scripts for Treatment Group Calls to Public School Districts

Hello, my name is \_\_\_\_\_ (interviewer name). I am calling from the U.S. Census Bureau.

Have I reached \_\_\_\_\_

During the upcoming school year we will be conducting the Schools and Staffing Survey (SASS) for the U.S. Department of Education. (*if necessary*: SASS is a series of integrated questionnaires that provide data on education to federal, state, and local policymakers as well as education researchers. The topics covered include teacher preparation and certification, professional development for administrators, and district-level policies and procedures).

As part of SASS we will be sending a questionnaire to your office. The questionnaire covers topics including student enrollment, staff professional development, and teacher hiring. Can you tell me the name of the best person in your district to address the questionnaire to? (*if necessary*: this is often the superintendent or head of the research office)

\_\_\_\_\_ (contact 1 name)  
\_\_\_\_\_ (contact 1 title)

And could I have their direct phone line?

(\_\_\_\_)- \_\_\_\_\_ - \_\_\_\_\_ (contact 1 direct phone)  
\_\_\_\_\_ (contact 1 email address)

I would also like to verify the mailing address: **Corrections to Address:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

In addition to the district questionnaire that we will be sending to you, a Census Bureau representative will be contacting schools in your district to conduct part of the Schools and Staffing Survey.

Is there a research application or other paperwork that would need to be completed before visiting the school? (*If respondent is unsure - ask to be connected with someone who would know*)

YES       NO

*If no - thank and end call.*

*If Yes:*

Who would be the contact person for these forms?

\_\_\_\_\_ (contact 2 name)  
\_\_\_\_\_ (contact 2 phone number)  
\_\_\_\_\_ (contact 2 fax)

*Ask to speak with the contact person, explain upcoming research and ask for their district requirements.  
What requirements are these?*

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*If paperwork is involved:  
fax to 202-502-7475*

*mail to: Lynn Zhao  
National Center for Education Statistics  
1990 K Street NW  
Washington, DC 20006*

*If available on a website collect address \_\_\_\_\_*

## Attachment M-2. Telephone Script for Control Group Calls to Public School Districts

Hello, my name is \_\_\_\_\_ (interviewer name). I am calling from the U.S. Census Bureau.

Have I reached \_\_\_\_\_

During the upcoming school year we will be conducting the Schools and Staffing Survey (SASS) for the U.S. Department of Education. (*if necessary*: SASS is a series of integrated questionnaires that provide data on education to federal, state, and local policymakers as well as education researchers. The topics covered include teacher preparation and certification, professional development for administrators, and district-level policies and procedures).

As part of SASS we will be sending a questionnaire to your office. The questionnaire covers topics including student enrollment, staff professional development, and teacher hiring. Can you tell me the name of the best person in your district to address the questionnaire to? (*if necessary*: this is often the superintendent or head of the research office)

\_\_\_\_\_ (contact 1 name)

\_\_\_\_\_ (contact 1 title)

And could I have their direct phone line?

(\_\_\_\_)- \_\_\_\_\_ - \_\_\_\_\_ (contact 1 direct phone)

\_\_\_\_\_ (contact 1 email address)

I would also like to verify the mailing address: **Corrections to Address:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Attachment M-3. Prenotice Letter to Test Districts



U.S. DEPARTMENT OF EDUCATION  
INSTITUTE OF EDUCATION SCIENCES

NATIONAL CENTER FOR EDUCATION STATISTICS

I want to thank you for agreeing to participate in the Schools and Staffing Survey (SASS) and let you know that we will begin data collection soon.

In the next few weeks, the Census Bureau will be sending a questionnaire to your office. In addition, a Census Bureau field representative will contact the sampled school(s) to ask for a list of teachers in order to draw a sample that will average about five teachers per school. At that time, the field representative will deliver the principal, school, library media center, and teacher questionnaires.

The U.S. Census Bureau will conduct this survey for NCES by the authority of P.L. 107-279 Section 153(a)(1) of the Education Sciences Reform Act of 2002, as amended. All responses that relate to or describe identifiable characteristics of individuals may be used only for statistical purposes and may not be used for any other purpose, unless otherwise compelled by law.

For more information about SASS, see our web site at: <http://nces.ed.gov/surveys/sass>. If you have any questions, please contact the Census Bureau at 1-800-221-1204 or by e-mail at: [dod.sass@census.gov](mailto:dod.sass@census.gov).

Thank you again for agreeing to participate in this important effort.

Sincerely,

A handwritten signature in black ink that reads "Jeffrey A. Owings".

JEFFREY A. OWINGS  
Associate Commissioner  
National Center for Education Statistics  
Elementary/Secondary and Library Studies Division

## Attachment M-4. Prenotice Letter to Control Districts



U.S. DEPARTMENT OF EDUCATION  
INSTITUTE OF EDUCATION SCIENCES

NATIONAL CENTER FOR EDUCATION STATISTICS

DEAR DISTRICT SUPERINTENDENT:

The National Center for Education Statistics (NCES), the statistical agency for the U.S. Department of Education, requests your district's participation in the 2003-04 Schools and Staffing Survey (SASS). The national sample includes 10,300 public schools and their associated school districts.

The Schools and Staffing Survey is an integrated set of surveys with questionnaires for schools, districts, principals, teachers, and library media centers. It is designed to measure critical aspects of schools and teaching, the composition of the principal and teacher work force, and conditions in schools. It provides both national and state-representative data on public school districts, schools, principals, and teachers, and national and affiliation-representative data for private schools, administrators, and teachers.

SASS was first conducted in school year 1987-88, again in 1990-91, in 1993-94, and in 1999-2000. From its beginning, this survey has been designed with input from state and local education agencies, school administrators, teachers, education policymakers, and researchers through the numerous organizations representing these various data providers and users.

The U.S. Census Bureau will conduct this survey for NCES by the authority of P.L. 107-279 Section 153(a)(1) of the Education Sciences Reform Act of 2002, as amended. All responses that relate to or describe identifiable characteristics of individuals may be used only for statistical purposes and may not be used for any other purpose, unless otherwise compelled by law.

In the next few weeks, the Census Bureau will be sending a questionnaire to your office. The sample school(s) in your district will receive a letter from the Census Bureau describing this year's survey. In addition, a Census Bureau field representative will contact the sample school(s) to ask for a list of teachers in order to draw a sample that will average about five teachers per school. At that time, the field representative will deliver the principal, school, library media center, and teacher questionnaires.

We are conducting this voluntary survey with a sample of districts, schools, principals, and teachers in order to keep response burden to a minimum. Thus, the value of each survey response is critical to preserving the integrity of the national sample. I encourage you to participate in this survey, and I ask that you encourage your school colleagues to participate if they are contacted.

For more information about SASS, see our web site at: <http://nces.ed.gov/surveys/sass>. If you have any questions, please contact the Census Bureau at 1-800-221-1204 or by e-mail at: [dcd.sass@censtat.gov](mailto:dcd.sass@censtat.gov).

Thank you for your participation in this important effort.

Sincerely,

Handwritten signature of Jeffrey A. Owings in black ink.

JEFFREY A. OWINGS  
Associate Commissioner  
National Center for Education Statistics  
Elementary/Secondary and Library Studies Division

SASS-11(L)  
(8-2003)

WASHINGTON, DC 20208-5652

## Attachment M-5. Prenotice Letter to Schools



SASS-14(L)  
(7-2003)

U.S. DEPARTMENT OF EDUCATION  
INSTITUTE OF EDUCATION SCIENCES

NATIONAL CENTER FOR EDUCATION STATISTICS

DEAR PRINCIPAL:

The National Center for Education Statistics (NCES), the statistical agency for the U.S. Department of Education, requests your school's participation in the 2003-04 Schools and Staffing Survey (SASS).

The Schools and Staffing Survey is an integrated set of surveys with questionnaires for schools, districts, principals, teachers, and library media centers. It is designed to measure critical aspects of schools and teaching, the composition of the principal and teacher work force, and conditions in schools. It provides both national and state-representative data on public school districts, schools, principals, and teachers, and national and affiliation-representative data for private schools, administrators, and teachers.

SASS was first conducted in school year 1987-88, again in 1990-91, in 1993-94, and in 1999-2000. From its beginning, this survey has been designed with input from state and local education agencies, school administrators, teachers, education policymakers, and researchers through the numerous organizations representing these various data providers and users.

The U.S. Census Bureau will conduct this survey for NCES by the authority of P.L. 107-279, Section 153(a)(1) of the Education Sciences Reform Act of 2002, as amended. All responses that relate to or describe identifiable characteristics of individuals may be used only for statistical purposes and may not be used for any other purpose, unless otherwise compelled by law.

In a few weeks, a Census Bureau field representative will call you to verify some information about your school and to request an appointed time to meet with you or your designated staff person regarding this survey. The field representative will ask for a list of people who teach at your school. A sample of teachers will be selected to complete a teacher questionnaire. The field representative will also deliver the Principal and the School Questionnaires. In addition, public schools with a library media center will receive a Library Media Center Questionnaire.

All of the schools selected for participation in the 2003-04 SASS will receive a CD version of the Statistical Abstract of the United States 2002. The Statistical Abstract contains thousands of facts and figures on the social, political, and economic organization of the United States.

We are conducting this voluntary survey with a sample of districts, schools, principals, and teachers in order to keep response burden to a minimum. Thus, the value of each survey response is critical to preserving the integrity of the national sample. I encourage you to participate in this survey, and I ask that you encourage your school colleagues to participate if they are contacted.

For more information about SASS, see our web site at: <http://nces.ed.gov/surveys/sass>. If you have any questions, please contact the Census Bureau at 1-800-221-1204 or by e-mail at: [dsc.sass@census.gov](mailto:dsc.sass@census.gov).

Thank you for your participation in this important effort.

Sincerely,

JEFFREY A. OWINGS  
Associate Commissioner  
National Center for Education Statistics  
Elementary/Secondary and Library Studies Division

## Attachment M-6. Contact Log

1. (S) FR Code: _____		4. Reassigned Case? (check <input type="checkbox"/> if yes) _____	
2. Control Number: _____		5. Boston Seattle Chicago	
3. School Name: _____		6. Page ___ of ___	

7. (S) FR's Record of Contact With Case						
Date	Form? (Circle one or both)	Start Time (include drive time)	End Time (include drive time)	Personal Visit or Telephone?	Outcome code of Contact	Comments
(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	C S	ap	ap	PV T		
2	C S	ap	ap	PV T		
3	C S	ap	ap	PV T		
4	C S	ap	ap	PV T		
5	C S	ap	ap	PV T		
6	C S	ap	ap	PV T		
7	C S	ap	ap	PV T		
8	C S	ap	ap	PV T		
9	C S	ap	ap	PV T		
10	C S	ap	ap	PV T		
11	C S	ap	ap	PV T		
12	C S	ap	ap	PV T		
13	C S	ap	ap	PV T		
14	C S	ap	ap	PV T		
15	C S	ap	ap	PV T		

Instructions for Completing the Contact Log			
Item	Specific Instruction	Item	Specific Instruction
1	Enter your Fr or SFR code	7b	Circle "C" if this contact is for the CAPI Teacher Listing Instrument; circle "S" if this contact is for the school questionnaire; and circle both "C" and "S" if the contact was to discuss both forms.
2	Enter the control number for this case	7c	Enter the time you left for the case or called the case (include drive time)
3	Enter the name of the school	7d	Enter the time you finished the contact or finished the call (include drive time)
4	Check this box if the case was reassigned to you (that is another FR had this case before you)	7e	Circle "PV" if this contact is a personal visit or "T" if you are contacting the respondent by telephone
5	Circle the regional office you are assigned to	7f	For each contact (other than the final contact) enter the two-digit code from the <b>Interim</b> code list that best describes the outcome of that contact. If this is the final outcome enter the two-digit <b>Final</b> outcome code.
6	Enter the page number and total number of pages for this case	7g	Describe the contact. If the contact requires follow-up, provide a detailed description of the follow up.
7a	Enter today's date Month/day/year		

INTERIM OUTCOME CODES (enter in box e – final outcome codes on other side)					
Code	Contact Description	Code	Contact Description	Code	Respondent Non-Contact Description
01	Partial interview, follow up required	09	Appointment broken – not rescheduled	20	Visited: School closed
02	Need district / Iea permission to conduct interview	10	Appointment broken – rescheduled	21	Telephoned: No answer
03	School has other procedures for conducting research (explain in box f)	11	Visited school; respondent not available	22	Telephoned: Busy signal
04	Respondent reluctant- follow up required	12	Contacted district / Iea for permission	23	Telephoned: Left message
05	Respondent refused- additional follow up required	13	Contacted district / Iea – not available	24	Telephoned: Disconnected or Wrong Number
06	Respondent too busy – set appointment	14	Gave to SFR or BO for district / Iea follow up	25	Other non contact (explain in box f)
07	Respondent too busy – unable to set appointment	15	Other Contact (explain in box f)		
08	Reminder call to respondent				

FINAL OUTCOME CODES (enter in box e)			
Code	Description	Code	Description
50	Completed interview	55	Reassigned (school moved out of area, or other reason)
51	Completed partial interview (form not complete)	56	Permission required from district & not enough time to get permission
52	Out of scope (school closed or other reason)	57	unable to contact / get in touch with <i>school</i>
53	District refusal	58	unable to contact / get in touch with <i>district</i>
54	School Refused	59	Other (explain in box f)

## **Appendix N. Results From the Quality Control Reinterview of the 2003–04 Schools and Staffing Survey**

This appendix contains the following material.

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## Summary

The primary objective of the quality control (QC) reinterview was to detect and deter falsification by field representatives. The long-term goals of the QC reinterview were to identify the causes of falsification, to determine its impact on data quality, and to prevent it in the future. The QC reinterview sought to identify instances when

- the field representative purposefully misclassified a valid case as out-of-scope to avoid doing work;
- the field representative knowingly keyed fewer teachers into the computer-assisted personal interviewing (CAPI) instrument than were listed on the paper Teacher Listing Form in order to reduce keying workload; and
- the field representative completed a form that he/she never dropped off at the school or returned to pick up to avoid a low response rate (falsification).

A total of 150 field representatives, 94 experienced and 56 inexperienced, were checked in the QC reinterview. There were no cases of confirmed falsification.

## Quality Assurance Design

The National Center for Education Statistics (NCES) and Census Bureau staff decided that 10 percent of experienced field representatives (1 or more years employment) and all inexperienced field representatives (less than 1 year of employment) would be selected for the QC reinterview. The Regional Offices trained 1,030 experienced and 109 inexperienced field representatives for the Schools and Staffing Survey (SASS). The plan was designed such that if eight cases were checked for a field representative, there was a 58.8 percent chance of detecting falsification if the field representative falsified at a 10 percent rate. If the field representative falsified at a higher rate, there was a greater chance of detection. If the field representative falsified at a lower rate, there was a lesser chance of detection.

NCES wanted each selected field representative's work monitored throughout the interview period. Therefore, the QC reinterview was done in two distinct phases. The first phase started on September 25, 2003, and ended on December 1, 2003. The second phase started on December 1, 2003, and finished May 28, 2004. Selected field representatives were to be checked in both Phase I and II.

There were four different strategies to check for field representative falsification, one to meet each of the following areas of potential falsification:

- validation of out-of-scope original cases;
- comparison of the number of teachers listed on the paper Teacher Listing Form to the number of teachers the field representative keyed into the CAPI instrument (Teacher Listing Form versus roster keyed);
- validation of completed teacher, school, principal, and school library media center questionnaires; and
- monitoring of field representatives not in the QC reinterview.

The Regional Offices prepared a Weekly QC Summary Report for the field representatives in reinterview and e-mailed a copy of that report to Census Bureau headquarters staff every Tuesday beginning on October 1, 2003. An example of the Weekly QC Summary Report is included as attachment N-1.

## **Out-of-Scope Cases**

All out-of-scope cases for all field representatives were sent for Regional Office supervisory review. Using the appropriate out-of-scope telephone script (included in attachment N-2), the supervisor was to contact the respondent to verify that the school, principal, library, or teacher was out-of-scope. Valid out-of-scope situations were possible for all four types of respondents—schools, principals, school library media centers, and teachers. Definitions for out-of-scope situations can be found in attachment N-3. If the supervisor determined that the respondent was in-scope, the case was restarted. A field representative who had a case that was incorrectly classified as out-of-scope would be suspected of falsification.

## **Teacher Listing Forms Versus Roster Keyed**

During each phase of the reinterview, the roster and corresponding Teacher Listing Form for one school with 20 or more teachers was to be checked for field representatives selected for the QC reinterview. The number of teachers keyed into the CAPI instrument was compared to the number of teachers on the Teacher Listing Form. If less than 80 percent of the number of teachers listed on the paper Teacher Listing Form were keyed into the CAPI instrument, then falsification was suspected.

## **Completed Questionnaires**

During each phase of reinterview, one completed school, principal, teacher, and school library media center questionnaire was to be checked from each of the field representatives selected for the QC reinterview. Using the completed questionnaire telephone script (Form SASS FRCQ-5, included as attachment N-4), the respondent was called to verify (s)he had completed the questionnaire.

## **Field Representatives Not in the QC Reinterview**

Field representatives not selected for the QC Reinterview were also monitored for suspicious behavior. A field representative's behavior was considered suspicious if

- the field representative did not send any Teacher Listing Forms back to the Regional Office; or
- the field representative keyed less than 65 percent of the expected number of teachers at a school for more than 50 percent of the schools that he or she was assigned. Only schools with 20 or more teachers were included. For most schools, the expected number of teachers was obtained from administrative data. However, for some schools the expected number of teachers was estimated.

The 35 percent tolerance level here is the same level that was used in the original CAPI instrument. When fewer teachers than the tolerance limit were keyed in the original CAPI instrument, the field representatives were prompted to explain why there were fewer teachers entered than expected.

If either of the above conditions were true, then falsification was suspected.

## Detailed Findings

A total of 150 field representatives were checked for the QC reinterview. None were found to have falsified.

### Out-of-Scope Cases

This report only includes the out-of-scope cases for field representatives selected for the QC reinterview. There were 88 occurrences of out-of-scope cases. None of the cases were confirmed of falsification. The Boston Regional Office did not report any cases as being out-of-scope for their selected field representatives. The majority of the out-of-scope cases came from two Regional Offices. Denver had 41 percent (36 cases) and Detroit had 25 percent (22 cases) of the out-of-scope cases.

### Teacher Listing Form Versus Roster Keyed

In the QC reinterview, counts obtained from 302 Teacher Listing Forms were compared to counts from the CAPI instrument. Fourteen cases were found to have less than 80 percent of the names listed on the Teacher Listing Form keyed into the CAPI instrument. These cases were examined by their respective Regional Office and each was confirmed legitimate.

Attachment N-5 contains a comparison by Regional Office of the number of teachers listed on the Teacher Listing Form to the number keyed in the CAPI instrument.

### Completed Questionnaires

In the QC reinterview, the Regional Offices attempted to contact 705 respondents nationally to ensure that the respondent completed the questionnaire. The Regional Offices contacted 678 respondents. The number of questionnaires checked by each type included

- 148 school library media center questionnaires;
- 183 principal questionnaires;
- 179 school questionnaires; and
- 168 teacher questionnaires.

There were no cases of confirmed falsification. However, it should be noted that the number of questionnaires checked was much lower than what the QC plan specified. Three hundred forms of each questionnaire type should have been checked. However, the volume of the workflow (discussed in the next section, “Problems in Original Survey That Impacted Reinterview”) and unclear procedures caused the low counts. The Charlotte Regional Office did not check any school library media center or school questionnaires. The Los Angeles Regional Office did not check any teacher questionnaires.

### Non-QC Field Representatives

One field representative from the Boston Regional Office was flagged for possible falsification. Of that field representative’s eligible cases, all five had less than 65 percent of the expected number of teachers keyed. Further investigation showed these were probably cases where the field representative re-opened the roster to add new names. What was believed to be an updated roster only included the new names. Thus the differences were attributable to a glitch in the software. (See the next section, “Problems in Original Survey That Impacted Reinterview.”)

Attachment N-6 contains detailed QC results by Regional Office for each of the above items.

### **Problems in Original Survey That Impacted Reinterview**

- The Regional Offices were supposed to check eight questionnaires from each selected field representative [four questionnaires (one of each type) during each phase]. However, this did not happen during production. Some field representatives did not have some types of questionnaires returned during Phase I and therefore did not have certain questionnaire types eligible for Phase I. Conversely, some field representatives did not have some types of questionnaires returned during Phase II and therefore did not have certain questionnaire types eligible for Phase II. This decreased the chances of detecting falsification.
- Completion of the paper Teacher Listing Form for each school was not required. Comparison of the Teacher Listing Form count to the CAPI instrument count could not be made if a paper Teacher Listing Form or school printout of teachers was not available. Of the schools with more than 20 teachers, 14 cases were excluded from the analysis for this reason.
- A problem with the CAPI instrument was identified and corrected during production. If a field representative re-opened the teacher roster to add or correct names, the CAPI instrument overwrote the original roster with only the new or corrected names.

### **Recommendations and Suggestions for Future Quality Control Reinterviews**

- The QC reinterview for completed questionnaires could be incorporated into the response error questionnaire. The three questions in the Form SASS FRCQ-5 script can be added to the front of the response error questionnaire. This would also make the monitoring easier and lessen the burden on the Regional Offices. The sampling method would have to be changed if the response error and QC questionnaires were combined.
- Another option for future evaluations would be to use a focused reinterview approach. This approach targets cases for reinterview based on certain characteristics and not a preselected random sample of field representatives. This may be the preferred option since there was not one case of confirmed falsification using random reinterview.
- Modify the summary reports. The Weekly QC Summary report should be simplified by splitting it into two distinct reports. One report would be for the roster check, and the second report would be for the completed questionnaires. A summary report for out-of-scope cases should also be used to monitor progress.
- Investigate whether or not the Teacher Listing Form and roster counts can be evaluated at Census Bureau headquarters.
- The responses on the four out-of-scope scripts should be keyed at the Regional Offices or the National Processing Center in Jeffersonville, Indiana. For the 2003–04 SASS, these scripts were keyed at Census Bureau headquarters.



## Attachment N-2. Out-of-Scope Telephone Scripts

Four scripts are included in this attachment:

- Form SASS OOSS-1, Out-of-Scope Teacher Listing Instrument (School);
- Form SASS OOSP-2, Out-of-Scope Principal;
- Form SASS OOSL-3, Out-of-Scope Library Media Center; and
- Form SASS OOST-4, Out-of-Scope Teacher.

### Form SASS OOSS-1

#### SCRIPT # 1, Out-of-Scope Teacher Listing Instrument (School):

Fill in the information requested below before calling:

RO Code: \_\_\_\_\_  
FR Code: \_\_\_\_\_ FR Name: \_\_\_\_\_  
Control Number: \_\_\_\_\_  
School name: \_\_\_\_\_  
School address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

School Type: (circle one)      Public              Private              Charter              Indian

Telephone number: ( ) - \_\_\_\_\_

Notes on case: \_\_\_\_\_  
\_\_\_\_\_

School Respondent's Name: \_\_\_\_\_

**IMPORTANT:** Before calling the school verify if this school has been classified as out-of-scope by headquarters. If the HQ has classified the case as out-of-scope. **DO NOT CALL.**

Use the script below when calling:

Hello. I'm [FILL: Caller's name], from the U.S. Census Bureau. May I speak to [FILL: school respondent's name].

Our records show that one of our interviewers recently contacted your school in regard to the 2003–2004 Schools and Staffing Survey. We're doing a short quality control check to make sure that our interviewers are following correct procedures.

I only need to ask you a few questions to do this.

Record callback attempts:

Callback #1: \_\_\_\_\_ (date & time)  
Callback #2: \_\_\_\_\_ (date & time)  
Callback #3: \_\_\_\_\_ (date & time)

**Form SASS OOSS-1**  
**SCRIPT # 1, Out-of-Scope Teacher Listing Instrument (School)—Continued**

Continue with the questions below: (Circle the response given.)

1. Did one of our interviewers recently visit your school to obtain a list of your current teachers and to leave questionnaires for staff members to fill?

Yes    No

2. Does this institution provide classroom instructions to students in any of the grades (1<sup>st</sup> through 12<sup>th</sup>) or the ungraded equivalent?

Yes    No

3. Is [FILL: school name] the correct name for your school?

Yes    No

4. Is the address of the school [FILL: school address]?

Yes    No

5. Is this a Public or Private school?

Public                  Private

That's all the information I need at this time. Thanks for your assistance.

-----**THE SECTION BELOW IS RESERVED FOR THE CALLER**-----

Caller's Name: \_\_\_\_\_

Caller's (S)FR code: \_\_\_\_\_

Based on the information attainted above, is this school in-scope for SASS?

Yes                                  No  
(if yes **restart** the case)

Based on the factual information you have about this case, do you think the FR is guilty of falsification?  
(Circle one)

Yes    No    Can't determine

**Form SASS OOSS-1**  
**SCRIPT # 1, Out-of-Scope Teacher Listing Instrument (School)—Continued**

**If Yes or Can't determine**, fill a Form 11-163.

**If No**, please explain below:

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Write additional comments below:

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Mail this form when completed to:

U.S. Census Bureau  
4700 Silver Hill Road  
Suite 3725-3, Mailstop 8700  
Washington, D.C. 20233

Attn: Geoffrey I. Jackson

**Form SASS OOSP-2**  
**SCRIPT # 2, Out-of-Scope Principal:**

*Fill in the information requested below before calling:*

RO Code: \_\_\_\_\_  
FR Code: \_\_\_\_\_ FR Name: \_\_\_\_\_  
Control Number: \_\_\_\_\_  
School name: \_\_\_\_\_  
School address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

School Type: (circle one)      Public                  Private                  Charter

Telephone number: ( ) - \_\_\_\_\_

Notes on case: \_\_\_\_\_  
\_\_\_\_\_

School Respondent's or Principal's Name: \_\_\_\_\_

*Use the script below when calling:*

Hello. I'm [FILL: Caller's name], from the U.S. Census Bureau. May I speak to [FILL: school respondent's or principal's name].

Our records show that one of our interviewers recently contacted your school in regard to the 2003–2004 Schools and Staffing Survey. We're doing a short quality check to make sure that our interviewers are following correct procedures.

I only need to ask you one or two questions to do this.

*Record callback attempts:*

Callback #1: \_\_\_\_\_ (date & time)  
Callback #2: \_\_\_\_\_ (date & time)  
Callback #3: \_\_\_\_\_ (date & time)

Continue with the question below: (Circle the answer given)

1. According to our interviewer, your school does NOT have a principal. Is this correct?  
Yes    No

**(If yes).** Is there another person at the school who performs the role of the principal, but is called by some other name such as school head, director, headmaster, or headmistress?  
[DO NOT INCLUDE A PERSON WHO IS TEMPORARILY THE "ACTING PRINCIPAL."]

Yes    No

That's all the information I need at this time. Thanks for your assistance.

**Form SASS OOSP-2**  
**SCRIPT # 2, Out-of-Scope Principal—Continued**

-----THE SECTION BELOW IS RESERVED FOR THE CALLER-----

Caller's Name: \_\_\_\_\_

Caller's (S)FR code: \_\_\_\_\_

Based on the factual information you have about the case, do you think the FR is guilty of falsification?  
(Circle one)

Yes    No    Can't determine

**If Yes or Can't determine**, fill a Form 11-163.

**If No**, please explain below:

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Write additional comments below:

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Mail this form when completed to:

U.S. Census Bureau  
4700 Silver Hill Road  
Suite 3725-3, Mailstop 8700  
Washington, D.C. 20233

Attn: Geoffrey I. Jackson

**Form SASS OOSL-3**  
**SCRIPT # 3, Out-of-Scope Library Media Center:**

*Fill in the information requested below before calling:*

RO Code: \_\_\_\_\_  
FR Code: \_\_\_\_\_ FR Name: \_\_\_\_\_  
Control Number: \_\_\_\_\_  
School name: \_\_\_\_\_  
School address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

School Type: (circle one)      Public      Private      Charter      Indian

Telephone number: ( ) - \_\_\_\_\_

Notes on case: \_\_\_\_\_  
\_\_\_\_\_

School Respondent's Name: \_\_\_\_\_

*Use the script below when calling:*

Hello. I'm [FILL: Caller's name], from the U.S. Census Bureau. May I speak to [FILL: school respondent's name].

Our records show that one of our interviewers recently contacted your school regarding the 2003–2004 Schools and Staffing Survey. We're doing a short quality control check to make sure that our interviewers are following the correct procedures.

I only need to ask you one question to do this.

*Record callback attempts:*

Callback #1: \_\_\_\_\_ (date & time)  
Callback #2: \_\_\_\_\_ (date & time)  
Callback #3: \_\_\_\_\_ (date & time)

Continue with the question below: (Circle the answer given)

According to our interviewer, your school does NOT have a Library Media Center. A Library Media Center is an organized collection of printed and/or audiovisual and/or computer resources which is administered as a unit, is located in a designated place or places, and makes resources and services available to students, teachers, and administrators.

A Library Media Center may be called a library, media center, resource center, information center, instructional materials center, learning resource center, or some other name.

**Form SASS OOSL-3**  
**SCRIPT # 3, Out-of-Scope Library Media Center—Continued**

Does your school have a Library Media Center?

Yes    No

That's all the information I need at this time. Thanks for your assistance.

-----**THE SECTION BELOW IS RESERVED FOR THE CALLER**-----

Caller's Name: \_\_\_\_\_

Caller's (S)FR code: \_\_\_\_\_

Based on the factual information you have about the case, do you think the FR is guilty of falsification?  
(Circle one)

Yes    No    Can't determine

**If Yes or Can't determine**, fill a Form 11-163.

**If No**, please explain below:

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Write additional comments below:

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Mail this form when completed to:

U.S. Census Bureau  
4700 Silver Hill Road  
Suite 3725-3, Mailstop 8700  
Washington, D.C. 20233

Attn: Geoffrey I. Jackson

**Form SASS OOST-4**  
**SCRIPT # 4, Out-of-Scope Teacher:**

Fill in the information requested below before calling:

RO Code: \_\_\_\_\_  
FR Code: \_\_\_\_\_ FR Name: \_\_\_\_\_  
Control Number: \_\_\_\_\_  
School name: \_\_\_\_\_  
School address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

School Type: (circle one)      Public              Private              Charter

Telephone number: ( ) - \_\_\_\_\_

Notes on case: \_\_\_\_\_  
\_\_\_\_\_

Name of teacher: \_\_\_\_\_

*Use the script below when calling:*

Hello. I'm [FILL: Caller's name], from the U.S. Census Bureau. May I speak to [FILL: Name of teacher].

*(If the teacher is not available at the school, ask the following question)*

May I then speak to someone who is knowledgeable of [FILL: Name of teacher]'s activities?

Our records show that one of our interviewers recently contacted your school regarding the 2003–2004 Schools and Staffing Survey. We're doing a short quality control check to make sure that our interviewers are following correct procedures.

I only need to ask you one or two questions to do this.

*Record callback attempts:*

Callback #1: \_\_\_\_\_ (date & time)  
Callback #2: \_\_\_\_\_ (date & time)  
Callback #3: \_\_\_\_\_ (date & time)

Continue with the questions below: (Circle the answer given)

***(I. If the respondent is [FILL: Name of teacher] then read them the following. If the respondent is not [FILL: Name of teacher] then skip to II)***

Recently one of our interviewers visited your school to obtain a list of the current teachers. Even though you were listed on the teacher listing form/roster and selected for sample, our interviewer excluded you from the survey.

**Form SASS OOST-4**  
**SCRIPT # 4, Out-of-Scope Teacher—Continued**

We want to make sure that our interviewer did not exclude you from the survey by mistake. As I read the reasons why we exclude certain teachers, let me know if one or more applies to you.

Do you teach regularly scheduled classes at [FILL: Name of school]?

Yes    No

**-Skip** to closing

***(II. If the respondent is NOT [FILL: Name of teacher] then read the following)***

Recently one of our interviewers visited your school to obtain a list of the current teachers. Even though [FILL: Name of teacher] was listed on the teacher listing form/roster and selected for sample, our interviewer excluded [FILL: Name of teacher] from the survey.

We want to make sure that our interviewer did not exclude [FILL: Name of teacher] from the survey by mistake. As I read the reasons why we exclude certain teachers, let me know if one or more applies to him/her.

1. He/she was not there when our interviewer attempted to deliver the Teacher Questionnaire (e.g., on sabbatical, on maternity leave)
2. He/she transferred to another school
3. He/she retired
4. He/she was never employed as a teacher at this school
5. He/she did not teach a class
6. He/she teaches only prekindergarten, adult students, or postsecondary students
7. He/she is a short-term substitute only
8. **None** of the reasons above applies

Closing

That's all the information I need at this time. Thanks for your assistance.

**Form SASS OOST-4**  
**SCRIPT # 4, Out-of-Scope Teacher—Continued**

-----THE SECTION BELOW IS RESERVED FOR THE CALLER-----

Caller's Name: \_\_\_\_\_

Caller's (S)FR code: \_\_\_\_\_

Based on the factual information you have about the case, do you think the FR is guilty of falsification?  
(Circle one)

Yes    No    Can't determine

**If Yes or Can't determine**, fill a Form 11-163.

**If No**, please explain below:

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---

---

Write additional comments below:

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---

---

Mail this form when completed to:

U.S. Census Bureau  
4700 Silver Hill Road  
Suite 3725-3, Mailstop 8700  
Washington, D.C. 20233

## **Attachment N-3. Definitions of Out-of-Scope Situations**

### **School**

A school is out-of-scope if it

1. is not operational (i.e., the school no longer exists or at least does not have any students, was supposed to open but didn't, or was closed during the school year);
2. does not have students in at least one grade between 1<sup>st</sup> and 12<sup>th</sup>;
3. is misclassified (e.g., a public school found at the address for a private school or a charter school found at the address for a private school, and vice versa);
4. is a duplicate school (more than one entry, such as variations in street address or name);
5. is not a school (e.g., an afterschool tutoring service for a public school or a preschool daycare program that is privately-operated at a public elementary school or an afterschool program in catechism or Hebrew study that is not part of the regular school day).

### **Principal or Head of School**

A principal is out-of-scope if the school respondent states that there is no one filling that position in the current school year (an acting principal is not eligible).

### **Library Media Center**

A library media center is out-of-scope if it does not have an organized collection of printed and/or audio/visual and/or computer resources which is administered as a unit, is not located in a designated place or places, and does not make resources available to students, teachers, and administrators. (This definition can be found in the library media center questionnaire as well as the public school questionnaire.)

### **Teacher**

A teacher is out-of-scope if (s)he does not teach any of grades 1 through 12. This includes someone who is a therapist/counselor, student teacher, or tutor, or is out on indefinite leave, or is only a short-term substitute, or quit teaching after being sampled, or is deceased.

## Attachment N-4. Completed Questionnaire Telephone Script

Form SASS FRCQ-5

SCRIPT # 5, Completed Questionnaires Returned by FR:

Circle questionnaire type:      **Principal**      **School**      **Teacher**

**Library Media Center**

RO Code: \_\_\_\_\_

FR Code: \_\_\_\_\_ FR Name: \_\_\_\_\_

Control Number: \_\_\_\_\_

School name: \_\_\_\_\_

School address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

School Type: (circle one)      Public      Private      Charter      Indian

Telephone number: ( ) - \_\_\_\_\_

Notes on case: \_\_\_\_\_

\_\_\_\_\_

School Respondent's Name: \_\_\_\_\_

*Use the script below when calling:*

Hello. I'm [FILL: Caller's name], from the U.S. Census Bureau. May I speak to [FILL: school respondent's name].

Our records show that one of our interviewers recently contacted your school. We're doing a short quality check to make sure that our interviewers are following correct procedures.

I need only to ask you one or two questions to do this.

*Record callback attempts:*

Callback #1: \_\_\_\_\_ (date & time)

Callback #2: \_\_\_\_\_ (date & time)

Callback #3: \_\_\_\_\_ (date & time)

Continue with the questions below: (Circle the answer given)

1. Were you recently given a questionnaire to complete that asked questions about you and/or your school?

Yes      No

**Form SASS FRCQ-5**  
**SCRIPT # 5, Completed Questionnaires Returned by FR—Continued**

2. Did you complete and return your questionnaire to the interviewer or mail it back to the Census Bureau?

Yes  
(SKIP 3 Go to closing)

No  
(GO TO 3)

3. If you did not complete the form could someone else have?

Yes No

That’s all the information I need at this time. Thanks for your assistance.

-----THE SECTION BELOW IS RESERVED FOR THE CALLER-----

Caller’s Name: \_\_\_\_\_

Caller’s (S)FR code: \_\_\_\_\_

Based on the information you have, do you think the FR is guilty of falsification? (Circle one)

Yes No Can’t determine

**If Yes or Can’t determine**, fill a Form 11-163.

**If No**, please explain below:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Write additional comments below:

\_\_\_\_\_  
\_\_\_\_\_

Mail this form when completed to:

U.S. Census Bureau  
4700 Silver Hill Road  
Suite 3725-3, Mailstop 8700  
Washington, D.C. 20233

Attn: Geoffrey I. Jackson

### Attachment N-5. Comparison Between the Number of Teachers Listed on the Teacher Listing Form and the Number of Teachers Keyed in the CAPI Instrument

The SAS procedure for a paired *t* test was used to determine the level of significant difference between the Teacher Listing Form and computer-assisted personal interviewing (CAPI) teacher listing counts. Using alpha of .05 the paired *t* test showed no statistically significant difference between the counts on the Teacher Listing Form and what was keyed into the CAPI instrument, except for Regional Office 27, as shown in table N-1.

The following formulas were used to test for significant difference:

$$t = \frac{\bar{d}}{s_d / \sqrt{n}}$$

$$\bar{d} = TLFcount_i - CAPIcount_i$$

*n* is the number of cases within the RO.

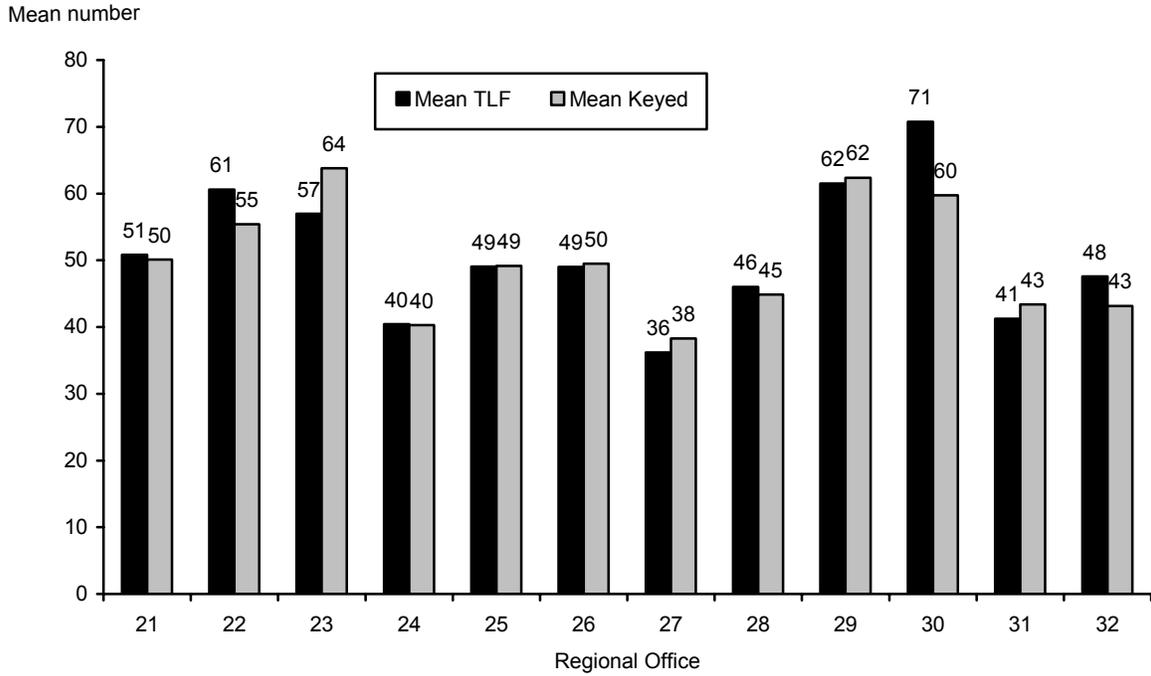
**Table N-1. Analysis of discrepancy between number of teachers listed on the Teacher Listing Form and number of teachers keyed into CAPI instrument: 2003–04**

Regional office	Number of cases	Mean difference between Teacher Listing Form and CAPI	Standard error	<i>t</i> value	<i>Pr</i> >   <i>t</i>
21 (Boston)	43	-0.721	1.276	-0.56	0.575
22 (New York)	10	-5.200	5.099	-1.02	0.334
23 (Philadelphia)	25	6.720	3.650	1.84	0.078
24 (Detroit)	7	-0.143	0.261	-0.55	0.604
25 (Chicago)	24	0.042	0.042	1.00	0.328
26 (Kansas City)	107	0.495	0.370	1.34	0.184
27 (Seattle)	10	2.100	0.836	2.51	0.033
28 (Charlotte)	17	-1.118	1.721	-0.65	0.525
29 (Atlanta)	8	0.875	0.611	1.43	0.195
30 (Dallas)	4	-11.000	8.134	-1.35	0.269
31 (Denver)	35	2.143	1.307	1.64	0.110
32 (Los Angeles)	12	-4.417	2.398	-1.84	0.093

SOURCE: Results from the Quality Control Reinterview of the 2003–04 Schools and Staffing Survey, U.S. Census Bureau, 2005.

The mean number of teachers listed on the Teacher Listing Form is compared to the mean number of teachers keyed in CAPI instrument in exhibit N-1.

**Exhibit N-1. Mean number of teachers listed on the Teacher Listing Form vs. mean number of teachers keyed in CAPI instrument: 2003–04**



NOTE: TLF refers to the Teacher Listing Form. CAPI refers to computer-assisted personal interviewing.  
 SOURCE: *Results from the Quality Control Reinterview of the 2003–04 Schools and Staffing Survey*, U.S. Census Bureau, 2005.

## Attachment N-6. Quality Control Results, by Regional Office

### SASS Reinterview Report for Boston

Results of quality assurance check				
	Regional Office 21		National	
	Number/Total	Percent	Number/Total	Percent
Teacher Listing Form/Roster keyed				
Roster count where teachers keyed in CAPI instrument was less than 80 percent of the Teacher Listing Form count	2/43	4.7	14/302	4.6
Out-of-scope				
Confirmed falsification	0/0	0.0	0/88	0.0
Completed questionnaires				
Total confirmed falsification	0/179	0.0	0/678	0.0
Library media center forms	0/45	0.0	0/148	0.0
Principal forms	0/45	0.0	0/183	0.0
School forms	0/43	0.0	0/179	0.0
Teacher forms	0/46	0.0	0/168	0.0
(S)FR information				
Number of (S)FRs checked	46		150	
Experienced field representatives	10		94	
Inexperienced field representatives	36		56	
Confirmed falsification rate	0/46	0.0	0/150	0.0

### SASS Reinterview Report for New York

Results of quality assurance check				
	Regional Office 22		National	
	Number/Total	Percent	Number/Total	Percent
Teacher Listing Form/Roster keyed				
Roster count where teachers keyed in CAPI instrument was less than 80 percent of the Teacher Listing Form count	0/10	0.0	14/302	4.6
Out-of-scope				
Confirmed falsification	0/5	0.0	0/88	0.0
Completed questionnaires				
Total confirmed falsification	0/22	0.0	0/678	0.0
Library media center forms	0/3	0.0	0/148	0.0
Principal forms	0/5	0.0	0/183	0.0
School forms	0/7	0.0	0/179	0.0
Teacher forms	0/7	0.0	0/168	0.0
(S)FR information				
Number of (S)FRs checked	5		150	
Experienced field representatives	2		94	
Inexperienced field representatives	3		56	
Confirmed falsification rate	0/5	0.0	0/150	0.0

### SASS Reinterview Report for Philadelphia

Results of quality assurance check				
	Regional Office 23		National	
	Number/Total	Percent	Number/Total	Percent
Teacher Listing Form/Roster keyed				
Roster count where teachers keyed in CAPI instrument was less than 80 percent of the Teacher Listing Form count	5/25	20.0	14/302	4.6
Out-of-scope				
Confirmed falsification	0/6	0.0	0/88	0.0
Completed questionnaires				
Total confirmed falsification	0/55	0.0	0/678	0.0
Library media center forms	0/11	0.0	0/148	0.0
Principal forms	0/15	0.0	0/183	0.0
School forms	0/15	0.0	0/179	0.0
Teacher forms	0/14	0.0	0/168	0.0
(S)FR information				
Number of (S)FRs checked	11		150	
Experienced field representatives	8		94	
Inexperienced field representatives	3		56	
Confirmed falsification rate	0/11	0.0	0/150	0.0

### SASS Reinterview Report for Detroit

Results of quality assurance check				
	Regional Office 24		National	
	Number/Total	Percent	Number/Total	Percent
Teacher Listing Form/Roster keyed				
Roster count where teachers keyed in CAPI instrument was less than 80 percent of the Teacher Listing Form count	0/7	0.0	14/302	4.6
Out-of-scope				
Confirmed falsification	0/22	0.0	0/88	0.0
Completed questionnaires				
Total confirmed falsification	0/24	0.0	0/678	0.0
Library media center forms	0/4	0.0	0/148	0.0
Principal forms	0/6	0.0	0/183	0.0
School forms	0/7	0.0	0/179	0.0
Teacher forms	0/7	0.0	0/168	0.0
(S)FR information				
Number of (S)FRs checked	6		150	
Experienced field representatives	6		94	
Inexperienced field representatives	0		56	
Confirmed falsification rate	0/6	0.0	0/150	0.0

### SASS Reinterview Report for Chicago

Results of quality assurance check				
	Regional Office 25		National	
	Number/Total	Percent	Number/Total	Percent
Teacher Listing Form/Roster keyed				
Roster count where teachers keyed in CAPI instrument was less than 80 percent of the Teacher Listing Form count	0/24	0.0	14/302	4.6
Out-of-scope				
Confirmed falsification	0/4	0.0	0/88	0.0
Completed questionnaires				
Total confirmed falsification	0/37	0.0	0/678	0.0
Library media center forms	0/9	0.0	0/148	0.0
Principal forms	0/10	0.0	0/183	0.0
School forms	0/10	0.0	0/179	0.0
Teacher forms	0/8	0.0	0/168	0.0
(S)FR information				
Number of (S)FRs checked	8		150	
Experienced field representatives	7		94	
Inexperienced field representatives	1		56	
Confirmed falsification rate	0/8	0.0	0/150	0.0

### SASS Reinterview Report for Kansas City

Results of quality assurance check				
	Regional Office 26		National	
	Number/Total	Percent	Number/Total	Percent
Teacher Listing Form/Roster keyed				
Roster count where teachers keyed in CAPI instrument was less than 80 percent of the Teacher Listing Form count	2/107	1.9	14/302	4.6
Out-of-scope				
Confirmed falsification	0/3	0.0	0/88	0.0
Completed questionnaires				
Total confirmed falsification	0/116	0.0	0/678	0.0
Library media center forms	0/25	0.0	0/148	0.0
Principal forms	0/31	0.0	0/183	0.0
School forms	0/35	0.0	0/179	0.0
Teacher forms	0/25	0.0	0/168	0.0
(S)FR information				
Number of (S)FRs checked	20		150	
Experienced field representatives	9		94	
Inexperienced field representatives	11		56	
Confirmed falsification rate	0/20	0.0	0/150	0.0

### SASS Reinterview Report for Seattle

Results of quality assurance check				
	Regional Office 27		National	
	Number/Total	Percent	Number/Total	Percent
Teacher Listing Form/Roster keyed				
Roster count where teachers keyed in CAPI instrument was less than 80 percent of the Teacher Listing Form count	1/10	10.0	14/302	4.6
Out-of-scope				
Confirmed falsification	0/7	0.0	0/88	0.0
Completed questionnaires				
Total confirmed falsification	0/67	0.0	0/678	0.0
Library media center forms	0/15	0.0	0/148	0.0
Principal forms	0/13	0.0	0/183	0.0
School forms	0/19	0.0	0/179	0.0
Teacher forms	0/20	0.0	0/168	0.0
(S)FR information				
Number of (S)FRs checked	11		150	
Experienced field representatives	9		94	
Inexperienced field representatives	2		56	
Confirmed falsification rate	0/11	0.0	0/150	0.0

### SASS Reinterview Report for Charlotte

Results of quality assurance check				
	Regional Office 28		National	
	Number/Total	Percent	Number/Total	Percent
Teacher Listing Form/Roster keyed				
Roster count where teachers keyed in CAPI instrument was less than 80 percent of the Teacher Listing Form count	1/17	5.9	14/302	4.6
Out-of-scope				
Confirmed falsification	0/1	0.0	0/88	0.0
Completed questionnaires				
Total confirmed falsification	0/17	0.0	0/678	0.0
Library media center forms	0/0	0.0	0/148	0.0
Principal forms	0/15	0.0	0/183	0.0
School forms	0/0	0.0	0/179	0.0
Teacher forms	0/2	0.0	0/168	0.0
(S)FR information				
Number of (S)FRs checked	7		150	
Experienced field representatives	7		94	
Inexperienced field representatives	0		56	
Confirmed falsification rate	0/7	0.0	0/150	0.0

### SASS Reinterview Report for Atlanta

Results of quality assurance check				
	Regional Office 29		National	
	Number/Total	Percent	Number/Total	Percent
Teacher Listing Form/Roster keyed				
Roster count where teachers keyed in CAPI instrument was less than 80 percent of the Teacher Listing Form count	0/8	0.0	14/302	4.6
Out-of-scope				
Confirmed falsification	0/1	0.0	0/88	0.0
Completed questionnaires				
Total confirmed falsification	0/40	0.0	0/678	0.0
Library media center forms	0/8	0.0	0/148	0.0
Principal forms	0/10	0.0	0/183	0.0
School forms	0/10	0.0	0/179	0.0
Teacher forms	0/12	0.0	0/168	0.0
(S)FR information				
Number of (S)FRs checked	11		150	
Experienced field representatives	11		94	
Inexperienced field representatives	0		56	
Confirmed falsification rate	0/11	0.0	0/150	0.0

### SASS Reinterview Report for Dallas

Results of quality assurance check				
	Regional Office 30		National	
	Number/Total	Percent	Number/Total	Percent
Teacher Listing Form/Roster keyed				
Roster count where teachers keyed in CAPI instrument was less than 80 percent of the Teacher Listing Form count	0/4	0.0	14/302	4.6
Out-of-scope				
Confirmed falsification	0/2	0.0	0/88	0.0
Completed questionnaires				
Total confirmed falsification	0/16	0.0	0/678	0.0
Library media center forms	0/4	0.0	0/148	0.0
Principal forms	0/4	0.0	0/183	0.0
School forms	0/4	0.0	0/179	0.0
Teacher forms	0/4	0.0	0/168	0.0
(S)FR information				
Number of (S)FRs checked	4		150	
Experienced field representatives	4		94	
Inexperienced field representatives	0		56	
Confirmed falsification rate	0/4	0.0	0/150	0.0

### SASS Reinterview Report for Denver

Results of quality assurance check				
	Regional Office 31		National	
	Number/Total	Percent	Number/Total	Percent
Teacher Listing Form/Roster keyed				
Roster count where teachers keyed in CAPI instrument was less than 80 percent of the Teacher Listing Form count	3/35	8.6	14/302	4.6
Out-of-scope				
Confirmed falsification	0/36	0.0	0/88	0.0
Completed questionnaires				
Total confirmed falsification	0/92	0.0	0/678	0.0
Library media center forms	0/21	0.0	0/148	0.0
Principal forms	0/24	0.0	0/183	0.0
School forms	0/24	0.0	0/179	0.0
Teacher forms	0/23	0.0	0/168	0.0
(S)FR information				
Number of (S)FRs checked	16		150	
Experienced field representatives	16		94	
Inexperienced field representatives	0		56	
Confirmed falsification rate	0/16	0.0	0/150	0.0

### SASS Reinterview Report for Los Angeles

Results of quality assurance check				
	Regional Office 32		National	
	Number/Total	Percent	Number/Total	Percent
Teacher Listing Form/Roster keyed				
Roster count where teachers keyed in CAPI instrument was less than 80 percent of the Teacher Listing Form count	0/12	0.0	14/302	4.6
Out-of-scope				
Confirmed falsification	0/1	0.0	0/88	0.0
Completed questionnaires				
Total confirmed falsification	0/13	0.0	0/678	0.0
Library media center forms	0/3	0.0	0/148	0.0
Principal forms	0/5	0.0	0/183	0.0
School forms	0/5	0.0	0/179	0.0
Teacher forms	0/0	0.0	0/168	0.0
(S)FR information				
Number of (S)FRs checked	5		150	
Experienced field representatives	5		94	
Inexperienced field representatives	0		56	
Confirmed falsification rate	0/5	0.0	0/150	0.0

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## Appendix O. Quality Assurance for Keying and Mailout Operations

The contents of this appendix are as follows:

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This appendix details the 2003–04 Schools and Staffing Survey (SASS) quality assurance (QA) for both data keying and mailout operations. An overview of the data keying operations is provided in chapter 7, and the mailout procedures are covered in chapter 5. “Data keying” is the method by which the SASS data are captured and converted from paper to electronic format. The “mailout operations” include all procedures necessary for preparing SASS packages for distribution to respondents, including printing of all forms (such as letters, questionnaires, postcards, etc.), label imaging, assembly of packages for schools, training kits for the field representatives, and assembly of questionnaire packets and booklets.

The first section of this appendix describes the data capture operation procedures used by keying staff, and explains why different data capture procedures were used for the SASS teacher questionnaires. The second section describes the detailed procedures used for quality assurance and verification of the SASS questionnaire data capture. The third section provides results of the verification of the SASS questionnaire data capture. The fourth section describes the detailed procedures for quality assurance of the mailout operations (except for SASS reinterview questionnaires) and provides the results. The final section describes the detailed procedures for the quality assurance of the reinterview questionnaire mailout operations and provides the results.

## **Data Capture Operations**

The 2003–04 SASS data were captured (converted from paper to electronic format) using a combination of manual data keying and imaging technology. Manual data keying, used for most of the SASS questionnaires, was accomplished using a Key from Paper (KFP) data capture system. The KFP system is programmed to present screens of questionnaire items to data keying staff, who page through each questionnaire and key any entries into the appropriate fields on the screens. The KFP system performs various edits as the data are keyed. Imaging technology differs from KFP by first capturing an electronic image of each questionnaire page. Along with the image capture, data can be captured using Optical Mark Recognition (OMR), which recognizes the marked box (next to precoded items) or the written alphanumeric entry, and enters the appropriate data into the OMR database for that questionnaire. Alternatively, the images can be presented to data keying staff, who capture the data by keying any entries into the appropriate fields on the screens (similar to the KFP process).

All of the SASS questionnaires except for the public and private teacher questionnaires (including all SASS reinterview questionnaires) were captured utilizing the KFP system.<sup>1</sup> Prior to keying, KFP programs were developed for each questionnaire. Images of these forms were captured after data entry was completed. The image files were used during subsequent steps of data processing to view the actual questionnaires online. All KFP entries were 100 percent verified by the keying staff, meaning that each field was keyed twice, and the results were compared automatically for discrepancies, and subsequently verified. The verification during this operation allowed up to a 1 percent error on a field-to-field basis. Unacceptable batches of questionnaires (where there was more than a 1 percent error) were 100 percent verified a second time by keying staff.

The data from SASS teacher questionnaires were captured using imaging technology and a combination of OMR and Key from Image (KFI). The precoded items (all items where the respondent answered by marking a box) on the SASS public and private teacher questionnaires (SASS-4A and -4B) were captured using OMR. All write-in fields (e.g., open-ended, numeric, and character fields) for these questionnaires were captured by the KFI process. OMR and KFI are both methods used by the Workflow and Image Processing System, an automated data capture system.

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<sup>1</sup> Teacher Listing Form data were captured using the SASS Teacher Listing instrument.

The first step of data capture for the SASS public and private teacher questionnaires was for members of keying staff to disassemble and scan each duplex booklet page. Electronic images of each duplex page were created along with a data response file. The data response file was processed through imaging recognition software at a 99 percent confidence level. If the recognition software was 99 percent certain that the response field contained a valid mark, the entry was copied to an output file. If the response fell outside the confidence level, the imaged response was presented to a keying operator to interpret and key from the image. All of the open-ended items also were presented to a member of the keying staff. All nonblank write-in KFI entries were 100 percent verified, meaning that each field was keyed twice, and the results were compared automatically for discrepancies and subsequently verified. The fields that were read as blank by the KFI system were verified at a 5 percent rate. That is, of the total number of write-in fields that were read as blanks for each item, 5 percent were examined a second time to verify that they were blank. The sample verification during this operation allowed a 1 percent error on a field-to-field basis. Unacceptable batches of questionnaires where there was more than a 1 percent error were 100 percent reverified by keying staff by referring back to the original survey.

Once data capture verification was complete for all batches of SASS teacher questionnaires, it was time for the final step in this process—to identify any possible discrepancies within the data. This “adjudication” process was performed by a member of the Census Bureau QA staff. It entailed comparing the original dataset and the verification dataset to the dataset that was recorded by the data capture system. In cases where any of the fields did not match one another, QA staff looked at the data and determined what kind of error was occurring. If only one of the fields was incorrect, the error code assigned by the QA staff determined which piece of data to keep for that item. If both were incorrect, they were corrected in a separate module. Once this process was complete, the teacher dataset was ready to be released to Census analysts to begin the next step of data processing.

The automated OMR and KFI data capture methods were chosen for the teacher forms because of the large quantity of questionnaires, as compared to the other SASS forms. Generally, it takes more time to program the automated OMR and KFI programs than it takes to program the KFP method. But OMR captures data much faster than keying from paper, so the time savings from a large quantity of OMR data capture can offset the additional programming time for the operation.

## **Quality Assurance and Verification Procedures for the Data Capture Operations**

This section provides details on the quality assurance and verification procedures that were performed in conjunction with the SASS questionnaire data capture. The first subsection, “General Information on Quality Assurance Procedures,” provides an overview of the procedures. The second subsection, “Definitions,” provides definitions of terms. The next seven subsections provide the detailed procedures that were used. Following the procedures are a list of the error codes that were used (exhibit O-1) and, in the final subsection, a QA decision table (exhibit O-2).

### **General Information on Quality Assurance Procedures**

1. This QA plan provided a method of assuring the quality of the data capture operations for the 2003–04 SASS utilizing the Workflow and Image Processing System (WIPS) Optical Mark Recognition (OMR) and the Key From Paper (KFP) system (documentary purposes only). The method of data capture and the surveys and form types that were used with each method are as follows:
  - a. *OMR and KFI*. Teacher Questionnaire (SASS-4A) and Private School Teacher Questionnaire (SASS-4B); and

- b. *KFP*. School District Questionnaire (SASS-1A), Principal Questionnaire (SASS-2A), Private School Principal Questionnaire (SASS-2B), Principal Reinterview Questionnaire (SASS-2(R)), School Questionnaire (SASS-3A), Private School Questionnaire (SASS-3B), School Reinterview Questionnaire (SASS-3(R)), Unified School Questionnaire (SASS-3Y), Public Teacher Reinterview Questionnaire (SASS-4A(R)), Private Teacher Reinterview Questionnaire (SASS-4B(R)), and School Library Media Center Questionnaire (LS-1A).
2. For the teacher questionnaires, data were captured utilizing the OMR data capture system to perform the automated data capture for the checkboxes and the KFI process for all other fields. Batches normally consisted of 10 documents. All nonblank data fields were 100 percent KFI verified. Batches were subject to having fields designated by the system as blank sample verified at a 5 percent rate. The sample verification during this operation had an acceptable quality level of a 1 percent on a field basis. Unacceptable (sample verified) batches were reverified on a 100 percent basis.

For all other SASS form types, data were captured utilizing the KFP Data Capture System. Batches were 100 percent verified (no QA plan required).

3. Upon completion of data capture for OMR batches, copies of the images were sent for independent KFI verification.
4. Upon completion of the independent verification for each batch, the original dataset and the verification dataset were matched. Any discrepancies were identified and adjudicated by the Quality Assurance Data Analysis Unit.
5. Once adjudication was complete, accepted batches were released for subsequent transmission. Rejected batches underwent 100 percent reverification, were matched against the original dataset, adjudicated, and released.
6. Keying staff in Jeffersonville, Indiana, completed keyboarding and procedural training prior to commencing production keying.
7. Batch statistics were maintained by the system and utilized by the QA staff to generate summary reports. Reports were provided to the sponsor and data capture management regarding project quality and for feedback to data capture operators.
8. Error codes for error classification are provided in the subsection, “Error Codes (Fields Only),” of this QA plan.

## Definitions

1. A **batch** consisted of 10 SASS teacher questionnaire forms with a cover sheet for scanning and data capture purposes. All other form types were batched in convenient lots to be determined jointly by clerical staff. The size of the batch was the number of forms in the batch.
2. A **zone** is synonymous with field and is the smallest denomination of defined captured data.
3. An **error** is defined as any incorrectly captured or omitted data field.
4. An **error** is assigned during the adjudication operation.

- a. **Charged errors** are errors determined to be the fault of the keyer and were used to determine the keyer's error rate.
  - b. **Noncharged errors** are keying errors that were not charged against the keyer.
  - c. Some discrepancies were considered **noncountable**. These were classified as verifier errors (VE) and verifier adjustments (VA). They did not affect the keyer or batch status and were not counted against either the keyer or the batch.
5. **Eligible sampling unit** is a field that was eligible to be selected for verification.
  6. A **field** is the smallest denomination of keyed data, as defined in the keying procedures.
  7. A **blank field** is a field where no data were detected by the system and a keyer did not see the field.
  8. **Census Batch Number** is a unique number created during the batching process.
  9. **WIPS Batch Number** is a unique eight-digit number created by the Workflow and Image Processing System (WIPS) during scanning.
  10. A field was considered to be **defective** if it contained one or more errors. This is synonymous with **field in error**.
  11. A **discrepancy** occurred when the verifier's entry for any field differed from its corresponding field in the original data capture process.
  12. **Adjudication** refers to the process of comparing the discrepancies to the data source to determine which entry was correct.
  13. **Flagged fields** are fields that were presented to the operator during the original data capture process.
  14. **Unflagged fields** are fields that were captured by the system and not presented to an operator during the original data capture process.
  15. **Key From Image (KFI)** is the process where an operator was NOT presented with the OMR interpretation of the captured data, and the operator entered the data using the snippet and/or full-page image.
  16. A **snippet** is the image of a zone that was presented to the operator during the data capture process.
  17. The **verifier** is the operator who independently keyed the data for the match to the original data to subsequently determine the quality of the batch.
  18. **Reverification** is the term used for performing 100 percent verification of rejected batches.
  19. **Excluded fields** are fields that were captured but not eligible for verification. These surveys have no such fields.

## Verification

1. KFI verification
  - a. Upon completion of the initial data capture, independent KFI verification was performed. Eligible fields on the images were presented to a KFI operator for verification.
  - b. For batches subjected to sample verification for blank fields, a **5 percent** systematic sample utilizing a random start was drawn from the universe of fields where the system did not detect presence of data and the fields were not seen by a keyer.
  - c. The verification was performed in the following manner:
    - (1) independently keying all fields presented by the system using the snippet and full-page image; and
    - (2) using the same keying rules as used in the initial data capture.
  - d. All errors detected in the verification process were corrected.
  - e. If, during data capture, an image was determined to be illegible due to scanning problems, the batch was suspended and subsequently deleted and re-scanned.
2. KFP verification
  - a. Upon completion of the initial data capture, independent KFP verification was performed. The verifier keyed all fields on the documents except for those designated as “scan verify” in the keying procedures.
  - b. The same keying rules were used as in the initial data capture.
  - c. All errors detected in the verification process were corrected.

## Quality Assurance Adjudication

1. Upon completion of the verification, the original dataset and the verification dataset for each batch were matched by the data capture system. Any discrepancies were identified and adjudicated by the Quality Assurance Data Analysis Unit staff.
2. If any fields within the batch did not match, the QA adjudicator determined if the production-captured data were in error. Assigned error codes determined the data field to be retained in the final dataset. If both fields were in error (error code 11), that field was routed to an OMR module for correction and returned to adjudication.
3. Once adjudication was completed, accepted batches were released for subsequent transmission. Rejected batches underwent 100 percent KFI, were matched against the original dataset, adjudicated, and released.

## Keyer Control

1. All keyers were placed in the qualified status. Each keyer became familiar with the format of the forms to be keyed.
2. Keyers in the qualified stage did not make decisions. Batch decisions on blank fields **only** were made in this stage.
3. Keyers were only removed based on an administrative decision (restricted stage—keyer status = R). Restricted keyers were not eligible to perform verification.

## **Batch Control**

1. Batch decisions for blank fields were sample verified and made.
2. All rejected batches were 100 percent reverified (KFI), matched against the original dataset, adjudicated, and released.
3. No batch decisions were made for nonblank data fields or KFP batches.
4. The system checked the keyer status of each verifier before allowing the verifier to verify a batch.

## **Feedback**

Discrepancy listings were provided for all batches. Keyers were given feedback for all errors and all cases in which they had shown improvement.

## **Rejected Batches**

1. All rejected batches were set by the system to be reverified.
2. Reverification of rejected batches occurred as soon as possible. This was considered part of the feedback to the keyer of the keying problems encountered.
3. Reverification required the verifier to independently reverify the batch on a 100 percent basis.

## **Quality Assurance Responsibilities**

1. The Quality Assurance Data Analysis Unit performed QA adjudication on all batches processed through the OMR and KFP operations.
2. The Visual Basic system generated a discrepancy listing for each batch for feedback to the operators.
3. The QA staff audited all discrepancies using the discrepancy listing and the source data.
4. Batch statistics were maintained by the system and utilized to generate summary reports. The Quality Assurance Data Analysis Unit provided weekly summary reports of the results of the QA process.

**Error Codes (Fields Only)**

Exhibit O-1 provides a list of error codes and definitions.

**Exhibit O-1. Error codes and definitions**

Error code	Definition
1	Other—chargeable (explain in remarks)
2	Data omission
3	Data duplication
4	Auto/manual dupe error
5 <sup>1</sup>	Respondent error—data outside recognition zone
6 <sup>1</sup>	Recognition misread
7 <sup>1</sup>	Recognition omission
8	Finger error
9	Procedure error
10 <sup>2</sup>	Indeterminable data error (nonchargeable)
11	Both capture and verifier data wrong (chargeable)
12 <sup>1</sup>	Code error
13 <sup>1</sup>	Machine error—keyer not at fault (supervisor initials)
14 <sup>1</sup>	Supervisor error—(supervisor initials)
15 <sup>1</sup>	Other—nonchargeable (explain in remarks)
16 <sup>1</sup>	Procedure modification/clarification
VA <sup>3</sup>	Verifier adjustment
VE <sup>3</sup>	Verifier error

<sup>1</sup> Nonchargeable errors.

<sup>2</sup> Error code 10 is for Quality Assurance use only.

<sup>3</sup> Do not charge as errors—chargeable or nonchargeable.

SOURCE: *Quality Assurance for Keying and Mailout Operations*, U.S. Census Bureau, 2005.

### Data Entry Quality Assurance Decision Table for Batch Decisions

Exhibit O-2 contains the quality assurance decision table that was used for batch decisions during data entry.

#### Exhibit O-2. Quality assurance decision rules: 2003–04

Number of fields verified	The decision is <b>accept</b> if the number of defective fields is equal to or less than:	The decision is <b>reject</b> if the number of defective fields is equal to or greater than:
Less than 10	0	1
10–36	1	2
37–82	2	3
83–138	3	4
139–199	4	5
200–263	5	6
264–331	6	7
332–401	7	8
402–473	8	9
474–545	9	10
546–619	10	11
620–695	11	12
696–771	12	13
772–848	13	14
849–927	14	15
928–1007	15	16
1,008–1,087	16	17
1,088–1,167	17	18
1,168–1,247	18	19
1,248–1,327	19	20
1,328–1,410	20	21
1,411–1,493	21	22
1,494–1,575	22	23
1,576–1,658	23	24
1,659–1,741	24	25
1,742–1,825	25	26
1,826–1,909	26	27
1,910–1,993	27	28
1,994–2,078	28	29
2,079–2,163	29	30
2,164–2,248	30	31
2,249–2,334	31	32
2,335–2,419	32	33
2,420–2,505	33	34
2,506 or more	34	(1)

<sup>1</sup> The number of defective fields required to reject a data entry batch increases as the number of fields being verified increases above the levels shown in this decision table.

NOTE: This decision table is to be used for sample verification only (not 100 percent). This decision table is based on probability of acceptance > .95 with an acceptable quality level of 1.0 percent on a field basis.

SOURCE: *Quality Assurance for Keying and Mailout Operations*, U.S. Census Bureau, 2005.

## Cumulative Data Keying Verification Reports

This section details the results of verification of the data keying. Exhibits O-3 and O-4 provide results and distribution of error types for the key from paper (KFP) data capture used for all SASS questionnaires except the teacher questionnaires. Exhibits O-5 and O-6 provide results and distribution of error types for the key from image (KFI) data capture used for the SASS teacher questionnaires.

### Exhibit O-3. Cumulative key from paper (KFP) data keying verification report, by form: 2003–04

KFP data keying verification	Total	SASS-1A 100 percent verified <sup>1</sup>	SASS-2, -2(R), -3, -3R, LS-1A 100 percent verified <sup>2</sup>	SASS-4(R) 100 percent verified <sup>3</sup>
Unit count (batches)	2,299	320	1,938	41
Accepted	0	0	0	0
Rejected	0	0	0	0
Keyed documents	37,295	4,474	31,769	1,052
Verified documents	37,295	4,474	31,769	1,052
Keyed records	642,633	85,876	547,315	9,442
Verified records	642,700	85,687	547,500	9,513
Keyed fields	11,104,547	1,607,572	9,422,039	74,936
Verified fields	11,099,044	1,606,335	9,417,725	74,984
Charge field errors	22,732	3,220	19,089	423
Charge error rate	0.20%	0.20%	0.20%	0.56%
Total errors	24,280	3,409	20,431	440
Total error rate	0.22%	0.21%	0.22%	0.59%

<sup>1</sup> SASS-1A refers to the School District Questionnaire.

<sup>2</sup> SASS-2 refers to the principal questionnaires and SASS-2(R) to the principal reinterview questionnaire, SASS-3 refers to the school questionnaires and SASS-3(R) to the school reinterview questionnaire, and LS-1A refers to the School Library Media Center Questionnaire.

<sup>3</sup> SASS-4(R) to the teacher reinterview questionnaires.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: *Quality Assurance for Keying and Mailout Operations*, U.S. Census Bureau, 2005.

**Exhibit O-4. Distribution of key from paper (KFP) errors, by form and error: 2003–04**

Error code and definition	SASS-1A 100 percent verified <sup>1</sup>		SASS-2, -2(R), -3, -3(R), LS-1A 100 percent verified <sup>2</sup>		SASS-4(R) 100 percent verified <sup>3</sup>	
	Number of errors	Percent	Number of errors	Percent	Number of errors	Percent
Total	3,409	100.00	20,431	100.00	440	100.00
1. Screening error	0	0.00	0	0.00	0	0.00
2. Data omission	1,735	50.89	11,957	58.52	231	52.50
3. Duplicate data	0	0.00	0	0.00	0	0.00
4. Did not hold down numeric shift	0	0.00	0	0.00	0	0.00
5. Did not hold down alpha shift	0	0.00	0	0.00	0	0.00
6. Manual duplication error	0	0.00	0	0.00	0	0.00
7. Auto duplication error	0	0.00	0	0.00	0	0.00
8. Finger error	625	18.33	3,466	16.96	30	6.82
9. Procedure error	860	25.23	3,666	17.94	162	36.82
10. Undeterminable data	0	0.00	0	0.00	0	0.00
11. Keyer/verifier in error	0	0.00	0	0.00	0	0.00
12. Code error	189	5.54	1,304	6.38	17	3.86
13. Machine error	0	0.00	0	0.00	0	0.00
14. Supervisor error	0	0.00	32	0.16	0	0.00
15. Explain in remarks	0	0.00	0	0.00	0	0.00
16. Procedure modification	0	0.00	6	0.03	0	0.00

<sup>1</sup> SASS-1A refers to the School District Questionnaire.

<sup>2</sup> SASS-2 refers to the principal questionnaires and SASS-2(R) to the principal reinterview questionnaire, SASS-3 refers to the school questionnaires and SASS-3(R) to the school reinterview questionnaire, and LS-1A refers to the School Library Media Center Questionnaire.

<sup>3</sup> SASS-4(R) to the teacher reinterview questionnaires.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: *Quality Assurance for Keying and Mailout Operations*, U.S. Census Bureau, 2005.

**Exhibit O-5. Cumulative key from image (KFI) data keying verification report, by form: 2003–04**

KFI data keying verification	Teacher Questionnaire (SASS-4A)			Private School Teacher Questionnaire (SASS-4B)		
	Total	100 percent verified	5 percent verified	Total	100 percent verified	5 percent verified
Unit count (batches)	4,556	4,556		846	846	
Accepted	4,544	4,544		845	845	
Rejected	12	12		1	1	
<b>ALL FIELDS</b>						
Total fields	18,302,431	15,733,045	2,569,386	3,554,084	2,993,039	561,045
Total fields verified	15,861,894	15,733,045	128,849	3,021,099	2,993,039	28,060
Total fields error	51,302	51,038	264	12,403	12,375	28
<b>Total fields error rate</b>	<b>0.32%</b>	<b>0.32%</b>	<b>0.20%</b>	<b>0.41%</b>	<b>0.41%</b>	<b>0.10%</b>
<b>Detail Summary</b>						
Nonblank fields	15,733,045	15,733,045	0	2,993,039	2,993,039	0
Nonblank fields verified	15,733,045	15,733,045	0	2,993,039	2,993,039	0
Fields in error	51,038	51,038	0	12,375	12,375	0
Fields error rate	0.32%	0.32%	0.00%	0.41%	0.41%	0.00%
Keyed fields	8,588,529	8,588,529	0	1,681,615	1,681,615	0
Keyed fields verified	8,588,529	8,588,529	0	1,681,615	1,681,615	0
Fields in error	49,799	49,799	0	12,168	12,168	0
Charge key fields error	44,400	44,400	0	10,425	10,425	0
Fields error rate	0.58%	0.58%	0.00%	0.72%	0.72%	0.00%
System fields	7,144,516	7,144,516	0	1,311,424	1,311,424	0
System fields verified	7,144,516	7,144,516	0	1,311,424	1,311,424	0
Fields in error	1,239	1,239	0	207	207	0
Fields error rate	0.02%	0.02%	0.00%	0.02%	0.02%	0.00%
Blank fields	2,569,386	0	2,569,386	561,045	0	561,045
Blank fields verified	128,849	0	128,849	28,060	0	28,060
Fields in error	264	0	264	28	0	28
Fields error rate	0.20%	0.00%	0.20%	0.10%	0.00%	0.10%
<b>TOTALS</b>						
Nonblank field error rate	0.32%	0.32%	0.00%	0.41%	0.41%	0.00%
Key field error rate	0.32%	0.32%	0.00%	0.41%	0.41%	0.00%
Key only field error rate	0.58%	0.58%	0.00%	0.72%	0.72%	0.00%
Charge key field error rate	0.52%	0.52%	0.00%	0.62%	0.62%	0.00%
System field error rate	0.01%	0.01%	0.00%	0.01%	0.01%	0.00%
System only field error rate	0.02%	0.02%	0.00%	0.02%	0.02%	0.00%
Blank field error rate	0.00%	0.00%	0.00%	0.10%	0.00%	0.10%

See notes at end of exhibit.

**Exhibit O-5. Cumulative key from image (KFI) data keying verification report, by form: 2003–04—Continued**

KFI data keying verification	Teacher Questionnaire (SASS-4A)			Private School Teacher Questionnaire (SASS-4B)		
	Total	100 percent verified	5 percent verified	Total	100 percent verified	5 percent verified
<b>BARCODE (control number)</b>						
Nonblank fields	45,266	45,266	0	8,422	8,422	0
Nonblank fields verified	45,266	45,266	0	8,422	8,422	0
Fields in error	39	39	0	14	14	0
Keyed fields	1,200	1,200	0	384	384	0
Keyed fields verified	1,200	1,200	0	384	384	0
Fields in error	22	22	0	7	7	0
Charge key fields error	19	19	0	7	7	0
System fields	44,066	44,066	0	8,038	8,038	0
System fields verified	44,066	44,066	0	8,038	8,038	0
Fields in error	17	17	0	7	7	0
Captured field error rate	0.09%	0.09%	0.00%	0.17%	0.17%	0.00%
Key field error rate	0.05%	0.05%	0.00%	0.08%	0.08%	0.00%
Key only field error rate	1.83%	1.83%	0.00%	1.82%	1.82%	0.00%
Charge key field error rate	1.58%	1.58%	0.00%	1.82%	1.82%	0.00%
System field error rate	0.04%	0.04%	0.00%	0.08%	0.08%	0.00%
System only field error rate	0.04%	0.04%	0.00%	0.09%	0.09%	0.00%
<b>OPTICAL MARK RECOGNITION (OMR)</b>						
Nonblank fields	7,127,796	7,127,796	0	1,308,639	1,308,639	0
Nonblank fields verified	7,127,796	7,127,796	0	1,308,639	1,308,639	0
Fields in error	2,879	2,879	0	685	685	0
Keyed fields	27,346	27,346	0	5,253	5,253	0
Keyed fields verified	27,346	27,346	0	5,253	5,253	0
Fields in error	1,657	1,657	0	485	485	0
Charge key fields error	1,574	1,574	0	456	456	0
System fields	7,100,450	7,100,450	0	1,303,386	1,303,386	0
System fields verified	7,100,450	7,100,450	0	1,303,386	1,303,386	0
Fields in error	1,222	1,222	0	200	200	0
Captured field error rate	0.04%	0.04%	0.00%	0.05%	0.05%	0.00%
Key field error rate	0.02%	0.02%	0.00%	0.04%	0.04%	0.00%
Key only field error rate	6.06%	6.06%	0.00%	9.23%	9.23%	0.00%
Charge key field error rate	5.76%	5.76%	0.00%	8.68%	8.68%	0.00%
System field error rate	0.02%	0.02%	0.00%	0.02%	0.02%	0.00%
System only field error rate	0.02%	0.02%	0.00%	0.02%	0.02%	0.00%

See notes at end of exhibit.

**Exhibit O-5. Cumulative key from image (KFI) data keying verification report, by form: 2003–04—Continued**

KFI data keying verification	Teacher Questionnaire (SASS-4A)			Private School Teacher Questionnaire (SASS-4B)		
	Total	100 percent verified	5 percent verified	Total	100 percent verified	5 percent verified
<b>INTELLIGENT/OPTICAL CHARACTER RECOGNITION (ICR/OCR)</b>						
Nonblank fields	8,559,983	8,559,983	0	1,675,978	1,675,978	0
Nonblank fields verified	8,559,983	8,559,983	0	1,675,978	1,675,978	0
Fields in error	48,121	48,121	0	11,676	11,676	0
Keyed fields	8,559,983	8,559,983	0	1,675,978	1,675,978	0
Keyed fields verified	8,559,983	8,559,983	0	1,675,978	1,675,978	0
Fields in error	48,119	48,119	0	11,676	11,676	0
Charge key fields error	42,806	42,806	0	9,964	9,964	0
System fields	0	0	0	0	0	0
System fields verified	0	0	0	0	0	0
Fields in error	0	0	0	0	0	0
Captured field error rate	0.56%	0.56%	0.00%	0.70%	0.70%	0.00%
Key field error rate	0.56%	0.56%	0.00%	0.70%	0.70%	0.00%
Key only field error rate	0.56%	0.56%	0.00%	0.70%	0.70%	0.00%
Charge key field error rate	0.50%	0.50%	0.00%	0.59%	0.59%	0.00%
System field error rate	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
System only field error rate	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Keyed documents	45,292	45,292	0	8,422	8,422	0
Verified documents	45,292	45,292	0	8,422	8,422	0

NOTE: Detail may not sum to totals because of rounding.

SOURCE: *Quality Assurance for Keying and Mailout Operations*, U.S. Census Bureau, 2005.

**Exhibit O-6. Distribution of key from image (KFI) errors, by form and error: 2003–04**

Error code and definition	Teacher Questionnaire (SASS-4A)				Private School Teacher Questionnaire (SASS-4B)			
	100 percent verified		5 percent verified		100 percent verified		5 percent verified	
	Number of errors	Percent	Number of errors	Percent	Number of errors	Percent	Number of errors	Percent
Total	51,038	100.00	264	100.00	12,375	100.00	28	100.00
1. Other—chargeable	4	0.01	2	0.76	8	0.06	0	0.00
2. Data omission	13,547	26.54	0	0.00	3,766	30.43	0	0.00
3. Duplicate data	0	0.00	0	0.00	0	0.00	0	0.00
4. Auto/manual dupe error	0	0.00	0	0.00	0	0.00	0	0.00
5. Respondent error—data outside recognition	6	0.01	1	0.38	1	0.01	2	7.14
6. Recognition misread	1,212	2.37	0	0.00	193	1.56	0	0.00
7. Recognition omission	1	0.00	261	98.86	0	0.00	26	92.86
8. Finger error	18,393	36.04	0	0.00	3,960	32.00	0	0.00
9. Procedure error	12,460	24.41	0	0.00	2,699	21.81	0	0.00
10. Undeterminable data	4	0.01	0	0.00	2	0.02	0	0.00
11. Keyer/verifier in error	0	0.00	0	0.00	0	0.00	0	0.00
12. Code error	5,395	10.57	0	0.00	1,740	14.06	0	0.00
13. Machine error	0	0.00	0	0.00	0	0.00	0	0.00
14. Supervisor error	0	0.00	0	0.00	0	0.00	0	0.00
15. Explain in remarks	0	0.03	0	0.00	6	0.05	0	0.00
16. Procedure modification	0	0.00	0	0.00	0	0.00	0	0.00

NOTE: Detail may not sum to totals because of rounding.

SOURCE: *Quality Assurance for Keying and Mailout Operations*, U.S. Census Bureau, 2005.

## **Mailout Operations Quality Assurance Summary**

This section details the QA plan for the mailout operations for the 2003–04 SASS. All packages that were mailed to respondents and field representatives were mailed from Jeffersonville, Indiana, by the Census Bureau clerical processing staff.

Forms and questionnaires were printed by commercial vendors or custom produced on docuprint equipment. Commercial vendors produced blank questionnaires that subsequently went through a separate labeling process, or docuprinting, in Jeffersonville. All of the SASS questionnaires except the Private School Questionnaire, the Unified School Questionnaire, and the reinterview questionnaires were printed commercially.

The docuprint equipment allowed for printing labeled questionnaires in one operation. The system was loaded with images of each questionnaire page, and a file of variable data for each respondent. The system can be programmed to print variable data that is specific to that respondent on any page of the questionnaire. For the 2003–04 SASS, docuprint was used to print variable data—the name and address of the school, the school’s control number and associated barcode—on the cover page of the Private School Questionnaire, the Unified School Questionnaire, and reinterview questionnaires. It also printed identification barcodes on each questionnaire page. All blank questionnaires, peel-off labels (used along with blank questionnaires by field representatives as replacement questionnaires), letters, postcards, and other custom forms, such as District Contact Sheets, also were produced using the docuprint equipment.

For questionnaire booklets, the docuprint equipment loaded one 17-inch by 11-inch sheet at a time. Four questionnaire pages (8.5 x 11, front and back) were printed onto this sheet. Once all sheets for a questionnaire booklet were completed, a sample of the work was examined to ensure that no errors occurred. When an error was found, an expanded inspection examined the questionnaires that were produced before and after the detected questionnaire to determine if a systematic error had taken place. Once the quality assurance of the printing was completed, the sheets went through a binding operation using Duplo Booklet Maker equipment. The Booklet Maker read the barcode to determine when the designated number of sheets for a particular questionnaire were loaded into the machine, and then folded and stapled it twice in the spine, and trimmed the right-side vertical edge of the booklet. Booklets were subjected to sample inspections and, when defects were detected, to expanded inspections. The docuprinting of all letters, questionnaires, postcards, labels, etc. and label imaging also were inspected for damage and incorrect presentation.

Commercially printed blank questionnaires were loaded into an Ektajet high-speed printer for labeling. The variable data for each respondent was programmed into the machine, and printer heads labeled the front page of each questionnaire as it passed through the machine. Labeled questionnaires were subjected to sample inspections and, when defects were detected, to expanded inspections.

The assembly of packages for schools, training kits for field representatives, and questionnaire packets were all inspected to assure that nothing was damaged, missing, contained undisclosed information, or was incorrectly presented. The results of the mailout QA, including error remarks, for all initial mailout operations can be found in exhibits O-7 through O-12. The results of the mailout QA, including error remarks and operations for all reinterview mailout operations, can be found in the following section.

**Exhibit O-7. Printing (Docuprint) quality assurance, by type of inspection and form: 2003–04**

Form <sup>1</sup>	Mailout	Number printed	Sample inspection			Expanded inspection			Date
			Number inspected	Number defective	Percent defects	Number inspected	Number defective	Percent defects	
Printing total		275,705	5,335	7	0.13	15	12	80.00	
SASS-14(L)X	Advance letter	180	30	0	0.00	0	0	0.00	01/07/03
SASS-14(L)X	Advance letter	70	30	0	0.00	0	0	0.00	03/24/03
SASS-91(L)X	Follow-up	61	15	0	0.00	0	0	0.00	03/24/03
SASS-92(L)X	Follow-up	66	15	0	0.00	0	0	0.00	03/24/03
SASS form A	Telephone form	736	20	0	0.00	0	0	0.00	06/05/03
SASS form B	Telephone form	137	5	0	0.00	0	0	0.00	06/05/03
SASS form C	Telephone form	146	5	0	0.00	0	0	0.00	06/05/03
LEA contact	Telephone script	151	30	0	0.00	0	0	0.00	07/17/03
LEA control	Control list	2,001	30	0	0.00	0	0	0.00	07/17/03
Labels	Label	55	30	0	0.00	0	0	0.00	07/29/03
LS-1A	Questionnaire	55	30	0	0.00	0	0	0.00	07/29/03
SASS-2A	Questionnaire	55	30	0	0.00	0	0	0.00	07/29/03
SASS-3A	Questionnaire	55	30	0	0.00	0	0	0.00	07/29/03
SASS-4A	Questionnaire	55	30	0	0.00	0	0	0.00	07/29/03
SASS-11(L)	LEA letter	1,400	30	0	0.00	0	0	0.00	08/04/03
SASS-14(L)	School letter	1,400	30	0	0.00	0	0	0.00	08/04/03
SASS-11(L)	LEA letter	9,458	360	1 <sup>2</sup>	0.28	0	0	0.00	08/15/03
SASS-14(L)	School letter	9,458	360	0	0.00	0	0	0.00	08/15/03
Labels	Label	1,124	27	2 <sup>3</sup>	7.41	12	12 <sup>3</sup>	100.00	08/13/03
SASS-11(L)	LEA letter	5,200	360	0	0.00	0	0	0.00	08/25/03
SASS-14(L)	School letter	7,050	360	0	0.00	0	0	0.00	08/26/03
SASS-11(L)	LEA letter	910	30	0	0.00	0	0	0.00	08/26/03
SASS-14(L)	School letter	910	30	0	0.00	0	0	0.00	08/26/03
SASS-14(L)	School letter	3,622	30	0	0.00	0	0	0.00	08/26/03
Labels-Y	Label	24,716	364	0	0.00	0	0	0.00	08/26/03
Labels-A	Label	10,056	428	0	0.00	0	0	0.00	09/02/03
Labels-A	Label	23	2	1 <sup>4</sup>	50.00	0	0	0.00	09/02/03
Labels-B	Label	160,336	1,006	0	0.00	0	0	0.00	09/11/03
SASS-14(L)	School letter	14,200	90	0	0.00	0	0	0.00	09/12/03
SASS-3B	Questionnaire	3,637	366	0	0.00	0	0	0.00	09/11/03
SASS-3B	Blank questionnaire	1,900	30	0	0.00	0	0	0.00	09/15/03
SASS-20	Field representative manual	1,275	18	0	0.00	0	0	0.00	09/16/03
SASS-13(L)	LEA letter	34	30	0	0.00	0	0	0.00	09/18/03
SASS-11(L)	LEA letter	4,725	30	0	0.00	0	0	0.00	09/18/03
Labels-Y	Label	23	2	0	0.00	0	0	0.00	09/25/03

See notes at end of exhibit.

**Exhibit O-7. Printing (Docuprint) quality assurance, by type of inspection and form: 2003–04—  
Continued**

Form <sup>1</sup>	Mailout	Number printed	Sample inspection			Expanded inspection			Date
			Number inspected	Number defective	Percent defects	Number inspected	Number defective	Percent defects	
SASS-10	Postcard—code 1	34	30	0	0.00	0	0	0.00	09/26/03
SASS-10	Postcard—code 3	56	30	0	0.00	0	0	0.00	09/26/03
SASS-10	Postcard—code 4	4,582	30	0	0.00	0	0	0.00	09/26/03
SASS-3Y	Questionnaire	915	302	2 <sup>5</sup>	0.66	3	0	0.00	09/29/03
SASS-3Y	Blank questionnaire	457	120	0	0.00	0	0	0.00	09/29/03
SASS-3B	Blank questionnaire	535	30	0	0.00	0	0	0.00	10/07/03
SASS-3Y	Blank questionnaire	515	30	0	0.00	0	0	0.00	10/06/03
SASS-2(R)	Blank questionnaire	15	15	0	0.00	0	0	0.00	10/15/03
SASS-3(R)	Blank questionnaire	15	15	0	0.00	0	0	0.00	10/15/03
SASS-4A(R)	Blank questionnaire	15	15	1 <sup>6</sup>	6.67	0	0	0.00	10/15/03
SASS-4B(R)	Blank questionnaire	15	15	0	0.00	0	0	0.00	10/15/03
SASS-3B	Blank questionnaire	3,136	30	0	0.00	0	0	0.00	11/07/03
SASS-3B	Blank questionnaire	100	330	0	0.00	0	0	0.00	03/03/04
SASS-3Y	Denver distribution	35	30	0	0.00	0	0	0.00	04/01/04

<sup>1</sup> LEA refers to local education agency, or school district. LS-1A refers to the School Library Media Center Questionnaire. SASS-2A refers to the Principal Questionnaire, and SASS-2(R) refers to the Principal Reinterview Questionnaire. SASS-3A refers to the School Questionnaire, SASS-3B to the Private School Questionnaire, SASS-3Y to the Unified School Questionnaire, and SASS-3(R) to the School Reinterview Questionnaire. SASS-4A refers to the Teacher Questionnaire, SASS-4A(R) to the Public Teacher Reinterview Questionnaire, and SASS-4B(R) to the Private Teacher Reinterview Questionnaire. SASS-10 refers to a postcard. SASS-11(L), SASS-13(L), and SASS-14(L) were used in the school district experiment that is described in “Appendix M. School District Experiment Findings.” SASS-11(L) refers to the prenotice letter sent to control districts. SASS-13(L) refers to the prenotice letter sent to test districts, and SASS-14(L) refers to the prenotice letter sent to schools. SASS-20 refers to the field representative manual. SASS-14(L)X refers to an advance letter, and SASS-91(L)X and SASS-92(L)X refer to follow-up letters.

<sup>2</sup> One form with extraneous marks.

<sup>3</sup> Fourteen errors due to labels printed on wrong paper—rejected/reprinted.

<sup>4</sup> One loss of information—Regional Office 25 file rejected due to sequence number obliterated.

<sup>5</sup> One extraneous mark, one damaged/torn.

<sup>6</sup> One extraneous mark.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: *Quality Assurance for Keying and Mailout Operations*, U.S. Census Bureau, 2005.

**Exhibit O-8. Package assembly quality assurance, by type of inspection and form: 2003**

Form <sup>1</sup>	Mailout	Number received	Sample inspection			Expanded inspection			Date
			Number inspected	Number defective	Percent defects	Number inspected	Number defective	Percent defects	
Package assembly total		22,105	22,105	5	0.02	0	0	0.00	
SASS-14(L)X	Advance letter	180	180	0	0.00	0	0	0.00	01/02/03
SASS-91(L)X	Follow-up	61	61	0	0.00	0	0	0.00	03/25/03
SASS-92(L)X	Follow-up	66	66	0	0.00	0	0	0.00	03/25/03
SASS-14(L)X	Advance (A-public)	9,458	9,458	0	0.00	0	0	0.00	09/17/03
SASS-14(L)X	Advance (B-private)	3,622	3,622	0	0.00	0	0	0.00	09/17/03
SASS-14(L)X	Advance (Y-unified)	910	910	0	0.00	0	0	0.00	09/17/03
SASS-1A	Initial code 4	4,582	4,582	2 <sup>2</sup>	0.04	0	0	0.00	09/19/03
SASS-13(L)	LEA letter <sup>3</sup>	34	34	0	0.00	0	0	0.00	09/22/03
SASS-11(L)	LEA letter <sup>3</sup>	56	56	0	0.00	0	0	0.00	09/19/03
SASS-1A	1 <sup>st</sup> follow-up	3,136	3,136	3 <sup>4</sup>	0.10	0	0	0.00	11/07/03

<sup>1</sup> SASS-1A refers to the School District Questionnaire. SASS-11(L), SASS-13(L), and SASS-14(L) were used in the school district experiment that is described in “Appendix M. School District Experiment Findings.” SASS-11(L) refers to the prenotice letter sent to control districts. SASS-13(L) refers to the prenotice letter sent to test districts, and SASS-14(L) refers to the prenotice letter sent to schools. SASS-14(L)X refers to an advance letter, and SASS-91(L)X and SASS-92(L)X refer to follow-up letters.

<sup>2</sup> Regional office 29 missing sequence # 238 and 239.

<sup>3</sup> LEA refers to Local Education Agency.

<sup>4</sup> Two extra return envelopes, one sealed/unsealed.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: *Quality Assurance for Keying and Mailout Operations*, U.S. Census Bureau, 2005.

**Exhibit O-9. Kit assembly quality assurance, by type of inspection and form: 2003**

Form	Mailout	Number received	Sample inspection			Expanded inspection			Date
			Number inspected	Number defective	Percent defects	Number inspected	Number defective	Percent defects	
Field representative training	Regional Office distribution and stock	210	38	1 <sup>1</sup>	2.63	0	0	0.00	09/04/03

<sup>1</sup> One extra questionnaire/form.

SOURCE: *Quality Assurance for Keying and Mailout Operations*, U.S. Census Bureau, 2005.

**Exhibit O-10. Label imaging quality assurance, by type of inspection and form: 2003**

Form <sup>1</sup>	Mailout	Number printed	Sample inspection			Expanded inspection			Date
			Number inspected	Number defective	Percent defects	Number inspected	Number defective	Percent defects	
Label imaging total		166,068	5,214	1	0.02	0	0	0.00	
LS-1A	Library questionnaire	1,384	30	0	0.00	0	0	0.00	08/07/03
SASS-2A	Principal questionnaire	1,384	30	0	0.00	0	0	0.00	08/07/03
SASS-3A	School questionnaire	1,384	30	0	0.00	0	0	0.00	08/07/03
SASS-4A	Teacher questionnaire	2,768	30	0	0.00	0	0	0.00	08/07/03
LS-1A	Library questionnaire	9,458	360	0	0.00	0	0	0.00	08/12/03
SASS-2A	Principal questionnaire	9,458	360	0	0.00	0	0	0.00	08/12/03
SASS-3A	School questionnaire	9,458	380	0	0.00	0	0	0.00	08/12/03
SASS-4A	Teacher questionnaire	82,303	1,090	1 <sup>2</sup>	0.09	0	0	0.00	08/12/03
SASS-4A	Teacher questionnaire	8,718	420	0	0.00	0	0	0.00	08/22/03
LS-1A	Library questionnaire	910	297	0	0.00	0	0	0.00	08/22/03
SASS-2A	Principal questionnaire	910	297	0	0.00	0	0	0.00	08/25/03
SASS-4B	Teacher questionnaire	23,367	360	0	0.00	0	0	0.00	08/27/03
SASS-2B	Principal questionnaire	3,622	360	0	0.00	0	0	0.00	09/04/03
SASS-1A	Initial code 1	34	34	0	0.00	0	0	0.00	09/22/03
SASS-1A	Initial code 3	56	56	0	0.00	0	0	0.00	09/22/03
SASS-1A	Initial code 4	4,582	360	0	0.00	0	0	0.00	09/19/03
SASS-1A	1 <sup>st</sup> follow-up	3,136	360	0	0.00	0	0	0.00	11/07/03
SASS-1A	1 <sup>st</sup> follow-up	3,136	360	0	0.00	0	0	0.00	11/07/03

<sup>1</sup> LS-1A refers to the School Library Media Center Questionnaire. SASS-1A refers to the School District Questionnaire SASS-2A refers to the Principal Questionnaire, and SASS-2B refers to the Private School Principal Questionnaire. SASS-3A refers to the School Questionnaire. SASS-4A refers to the Teacher Questionnaire and SASS-4B to the Private School Teacher Questionnaire.

<sup>2</sup> One form with extraneous marks.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: *Quality Assurance for Keying and Mailout Operations*, U.S. Census Bureau, 2005.

**Exhibit O-11. Packet assembly quality assurance, by type of inspection and form: 2003**

Form	Mailout	Number received	Sample inspection			Expanded inspection			Date
			Number inspected	Number defective	Percent defects	Number inspected	Number defective	Percent defects	
Public "A" total		9,458	9,458	164	1.73	0	0	0.00	
Public "A"	Regional Office 21	983	983	36 <sup>1</sup>	3.66	0	0	0.00	08/22/03
Public "A"	Regional Office 22	211	211	4 <sup>2</sup>	1.90	0	0	0.00	09/02/03
Public "A"	Regional Office 23	676	676	20 <sup>3</sup>	2.96	0	0	0.00	08/22/03
Public "A"	Regional Office 24	578	578	2 <sup>4</sup>	0.35	0	0	0.00	09/02/03
Public "A"	Regional Office 25	546	546	4 <sup>5</sup>	0.73	0	0	0.00	09/02/03
Public "A"	Regional Office 26	1,320	1,320	11 <sup>6</sup>	0.83	0	0	0.00	09/02/03
Public "A"	Regional Office 27	879	879	20 <sup>7</sup>	2.28	0	0	0.00	08/22/03
Public "A"	Regional Office 28	966	966	7 <sup>8</sup>	0.72	0	0	0.00	09/02/03
Public "A"	Regional Office 29	606	606	4 <sup>9</sup>	0.66	0	0	0.00	09/02/03
Public "A"	Regional Office 30	663	663	20 <sup>10</sup>	3.02	0	0	0.00	09/02/03
Public "A"	Regional Office 31	1,649	1,649	24 <sup>11</sup>	1.46	0	0	0.00	09/02/03
Public "A"	Regional Office 32	381	381	12 <sup>12</sup>	3.15	0	0	0.00	09/02/03
Private "B" total		3,622	3,622	72	1.99	0	0	0.00	
Private "B"	Regional Office 21	287	287	3 <sup>13</sup>	1.05	0	0	0.00	09/11/03
Private "B"	Regional Office 22	272	272	3 <sup>14</sup>	1.10	0	0	0.00	09/11/03
Private "B"	Regional Office 23	448	448	13 <sup>15</sup>	2.90	0	0	0.00	09/11/03
Private "B"	Regional Office 24	258	258	9 <sup>16</sup>	3.49	0	0	0.00	09/11/03
Private "B"	Regional Office 25	403	403	3 <sup>17</sup>	0.74	0	0	0.00	09/11/03
Private "B"	Regional Office 26	267	267	2 <sup>18</sup>	0.75	0	0	0.00	09/11/03
Private "B"	Regional Office 27	285	285	9 <sup>19</sup>	3.16	0	0	0.00	09/11/03
Private "B"	Regional Office 28	289	289	2 <sup>20</sup>	0.69	0	0	0.00	09/11/03
Private "B"	Regional Office 29	358	358	0	0.00	0	0	0.00	09/11/03
Private "B"	Regional Office 30	274	274	5 <sup>21</sup>	1.82	0	0	0.00	09/11/03
Private "B"	Regional Office 31	204	204	2 <sup>22</sup>	0.98	0	0	0.00	09/11/03
Private "B"	Regional Office 32	277	277	21 <sup>23</sup>	7.58	0	0	0.00	09/11/03
Unified "Y" total		910	910	30	3.30	0	0	0.00	
Unified "Y"	Regional Office 21	75	75	2 <sup>24</sup>	2.67	0	0	0.00	09/29/03
Unified "Y"	Regional Office 22	14	14	0	0.00	0	0	0.00	09/29/03
Unified "Y"	Regional Office 23	37	37	0	0.00	0	0	0.00	09/29/03
Unified "Y"	Regional Office 24	59	59	0	0.00	0	0	0.00	09/29/03
Unified "Y"	Regional Office 25	35	35	3 <sup>25</sup>	8.57	0	0	0.00	09/29/03

See notes at end of exhibit.

**Exhibit O-11. Packet assembly quality assurance, by type of inspection and form: 2003—Continued**

Form	Mailout	Number received	Sample inspection			Expanded inspection			Date
			Number inspected	Number defective	Percent defects	Number inspected	Number defective	Percent defects	
Unified “Y”	Regional Office 26	161	161	12 <sup>26</sup>	7.45	0	0	0.00	09/29/03
Unified “Y”	Regional Office 27	41	41	1 <sup>27</sup>	2.44	0	0	0.00	09/29/03
Unified “Y”	Regional Office 28	27	27	6 <sup>28</sup>	22.22	0	0	0.00	09/29/03
Unified “Y”	Regional Office 29	12	12	0	0.00	0	0	0.00	09/29/03
Unified “Y”	Regional Office 30	63	63	0	0.00	0	0	0.00	09/29/03
Unified “Y”	Regional Office 31	382	382	6 <sup>29</sup>	1.57	0	0	0.00	09/29/03
Unified “Y”	Regional Office 32	4	4	0	0.00	0	0	0.00	09/29/03

<sup>1</sup> One extra questionnaire/form, 46 extra brochures/booklets, one omitted seq#/form seq, 18 omitted brochures/booklets, two disclosures, one incorrectly assemble, one blank envelope.

<sup>2</sup> One extra cover letter/flyer, three extra brochures/booklets, four omitted brochures/booklets.

<sup>3</sup> One extra questionnaire/form, six extra brochures/booklets, eight omitted brochures/booklets, five disclosures, three omitted label sheets, three extra label sheets.

<sup>4</sup> One extra cover letter/flyer, three omitted brochures/booklets.

<sup>5</sup> One extra cover letter/flyer, one omitted cover letter/flyer, three omitted brochures/booklets, one omitted postcard.

<sup>6</sup> Two extra questionnaires/forms, three extra brochures/booklets, four omitted brochures/booklets, three disclosures, two extra label sheets, two omitted label sheets, one omitted postcard.

<sup>7</sup> Two extra cover letters/flyers, nine extra brochures/booklets, 12 omitted brochures/booklets, one extra postcard, one out of sequence, three brochures not stapled.

<sup>8</sup> One extra seq#/form seq, four extra brochures/booklets, eight omitted brochures/booklets.

<sup>9</sup> Four extra brochures/booklets, three omitted brochures/booklets, one disclosure, and one extra label sheet.

<sup>10</sup> Two extra cover letters/flyers, nine extra brochures/booklets, 12 omitted brochures/booklets, three brochures not stapled, one extra postcard, one out of sequence.

<sup>11</sup> Four extra cover letters/flyers, 18 extra brochures/booklets, one omitted questionnaire/form, 11 omitted brochures/booklets.

<sup>12</sup> One extra questionnaire/form, three extra brochures/booklets, eight omitted brochures/booklets, one disclosure, one omitted postcard, one extra postcard.

<sup>13</sup> One extra brochure/booklet, two extra postcards.

<sup>14</sup> One extra postcard, two omitted postcard.

<sup>15</sup> Two extra questionnaires/forms, two extra brochures/booklets, seven omitted brochures/booklets, four extra postcards, one omitted postcard.

<sup>16</sup> Two extra cover letters/flyers, five extra brochures/booklets, one omitted brochure/booklet, one omitted postcard.

<sup>17</sup> One extra brochure/booklet, two omitted cover letters/flyers.

<sup>18</sup> One extra brochure/booklet, one omitted cover letter/flyer.

<sup>19</sup> Six extra brochures/booklets, one omitted brochure/booklet, five extra postcards, and one omitted postcard.

<sup>20</sup> Three omitted brochures/booklets.

<sup>21</sup> One extra brochure/booklet, one omitted questionnaire/form, one extra postcard, and two omitted postcards.

<sup>22</sup> Two extra brochures/booklets.

<sup>23</sup> Fifteen extra questionnaires/forms, five extra brochures/booklets, one omitted brochure/booklet, two extra postcards.

<sup>24</sup> Two omitted brochures/booklets.

<sup>25</sup> Two omitted cover letters/flyers, one omitted brochure/booklet.

<sup>26</sup> One extra seq#/form seq, 10 omitted brochures/booklets, one omitted label sheet.

<sup>27</sup> One omitted brochure/booklet.

<sup>28</sup> Seven omitted cover letters/flyers, three omitted brochures/booklets.

<sup>29</sup> Three extra questionnaires/forms, one extra cover letter/flyer, two extra brochures/booklets, one omitted questionnaire/form, two omitted brochures/booklets.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: *Quality Assurance for Keying and Mailout Operations*, U.S. Census Bureau, 2005.

**Exhibit O-12. Duplo booklet maker inspection quality assurance, by type of inspection and form: 2003–04**

Form <sup>1</sup>	Mailout	Number received	Sample inspection			Expanded inspection			Date
			Number inspected	Number defective	Percent defects	Number inspected	Number defective	Percent defects	
Duplo total		8,133	859	3	0.35	0	0	0.00	
SASS-3B	Regional Office distribution	3,636	365	1 <sup>2</sup>	0.27	0	0	0.00	09/11/03
SASS-3B	Blank questionnaire	1,900	30	0	0.00	0	0	0.00	09/16/03
SASS-3Y	School questionnaire	912	299	2 <sup>3</sup>	0.67	0	0	0.00	09/29/03
SASS-3Y	Blank questionnaire	559	30	0	0.00	0	0	0.00	09/30/03
SASS-3Y	Blank questionnaire	512	30	0	0.00	0	0	0.00	10/08/03
SASS-3B	Blank questionnaire	534	30	0	0.00	0	0	0.00	10/08/03
SASS-3(R)	Blank questionnaire	15	15	0	0.00	0	0	0.00	10/15/03
SASS-4A(R)	Blank questionnaire	15	15	0	0.00	0	0	0.00	10/15/03
SASS-4B(R)	Blank questionnaire	15	15	0	0.00	0	0	0.00	10/15/03
SASS-3Y	Denver distribution	35	30	0	0.00	0	0	0.00	04/01/04

<sup>1</sup> SASS-3B refers to the Private School Questionnaire, SASS-3Y to the Unified School Questionnaire, and SASS-3(R) to the School Reinterview Questionnaire. SASS-4A(R) refers to the Public Teacher Reinterview Questionnaire, and SASS-4B(R) to the Private Teacher Reinterview Questionnaire.

<sup>2</sup> One damaged/torn.

<sup>3</sup> Two sequence numbers out of order.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: *Quality Assurance for Keying and Mailout Operations*, U.S. Census Bureau, 2005.

**Reinterview Mailout Operations and Quality Assurance Summary**

This section details the QA plan for the reinterview mailout operations for the 2003–04 SASS. All packages that were mailed to respondents and field representatives were mailed from Jeffersonville, Indiana, by Census Bureau clerical processing staff. There were a number of details that were inspected for defects during the reinterview mailout phase of SASS. The printing of all forms (including letters, questionnaires, postcards, labels, etc.) was inspected for damage and incorrect presentation. The reinterview packages for schools were inspected to assure that nothing was damaged, missing, contained undisclosed information, or was incorrectly presented. Finally, the questionnaire booklets were inspected to assure that they were assembled and bound properly and were not damaged.

The results of the mailout quality assurance, including error remarks, for all reinterview mailout operations can be found in exhibits O-13 through O-15.

**Exhibit O-13. Printing (Docuprint) quality assurance for reinterview questionnaires, by type of inspection and form: 2003–04**

Form <sup>1</sup>	Mailout	Number printed	Sample inspection			Expanded inspection			Date
			Number inspected	Number defective	Percent defects	Number inspected	Number defective	Percent defects	
Printing total		20,993	3,909	0	0.00	0	0	0.00	
SASS-2(R)	Reinterview	272	30	0	0.00	0	0	0.00	12/05/03
SASS-3(R)	Reinterview	285	30	0	0.00	0	0	0.00	12/05/03
SASS-17(L)R	Reinterview	285	30	0	0.00	0	0	0.00	12/05/03
SASS-18(L)R	Reinterview	25	25	0	0.00	0	0	0.00	12/05/03
SASS-19(L)R	Reinterview	272	30	0	0.00	0	0	0.00	12/05/03
SASS-2(R)	Reinterview	124	30	0	0.00	0	0	0.00	12/09/03
SASS-3(R)	Reinterview	85	30	0	0.00	0	0	0.00	12/09/03
SASS-4A(R)	Reinterview	23	23	0	0.00	0	0	0.00	12/09/03
SASS-4B(R)	Reinterview	2	2	0	0.00	0	0	0.00	12/09/03
SASS-17(L)R	Reinterview	85	30	0	0.00	0	0	0.00	12/10/03
SASS-19(L)R	Reinterview	124	30	0	0.00	0	0	0.00	12/10/03
SASS-17(L)R	Reinterview	214	30	0	0.00	0	0	0.00	12/12/03
SASS-18(L)R	Reinterview	578	30	0	0.00	0	0	0.00	12/12/03
SASS-19(L)R	Reinterview	573	30	0	0.00	0	0	0.00	12/12/03
SASS-10	Reminder	272	30	0	0.00	0	0	0.00	12/15/03
SASS-10	Reminder	285	30	0	0.00	0	0	0.00	12/15/03
SASS-10	Reminder	238	30	0	0.00	0	0	0.00	12/16/03
SASS-2(R)	Reinterview	573	30	0	0.00	0	0	0.00	12/19/03
SASS-3(R)	Reinterview	214	30	0	0.00	0	0	0.00	12/19/03
SASS-4A(R)	Reinterview	328	30	0	0.00	0	0	0.00	12/19/03
SASS-4B(R)	Reinterview	251	30	0	0.00	0	0	0.00	12/19/03
SASS-17(L)R	Reinterview	266	30	0	0.00	0	0	0.00	01/06/04
SASS-18(L)R	Reinterview	539	30	0	0.00	0	0	0.00	01/06/04
SASS-19(L)R	Reinterview	349	30	0	0.00	0	0	0.00	01/06/04
SASS-2(R)	Reinterview	349	30	0	0.00	0	0	0.00	01/08/04
SASS-3(R)	Reinterview	266	30	0	0.00	0	0	0.00	01/08/04
SASS-4A(R)	Reinterview	465	30	0	0.00	0	0	0.00	01/08/04
SASS-4B(R)	Reinterview	75	30	0	0.00	0	0	0.00	01/08/04
SASS-10	Reminder	1,365	60	0	0.00	0	0	0.00	01/08/04
SASS-17(L)R	Reinterview	30	30	0	0.00	0	0	0.00	01/08/04
SASS-18(L)R	Reinterview	53	30	0	0.00	0	0	0.00	01/08/04
SASS-19(L)R	Reinterview	40	30	0	0.00	0	0	0.00	01/08/04
SASS-2(R)	Reinterview	40	30	0	0.00	0	0	0.00	01/12/04
SASS-3(R)	Reinterview	30	30	0	0.00	0	0	0.00	01/12/04
SASS-4A(R)	Reinterview	43	30	0	0.00	0	0	0.00	01/12/04

See notes at end of exhibit.

**Exhibit O-13. Printing (Docuprint) quality assurance for reinterview questionnaires, by type of inspection and form: 2003–04—Continued**

Form <sup>1</sup>	Mailout	Number printed	Sample inspection			Expanded inspection			Date
			Number inspected	Number defective	Percent defects	Number inspected	Number defective	Percent defects	
SASS-4B(R)	Reinterview	10	10	0	0.00	0	0	0.00	01/12/04
SASS-17(L)R	Reinterview	95	30	0	0.00	0	0	0.00	01/12/04
SASS-18(L)R	Reinterview	86	30	0	0.00	0	0	0.00	01/12/04
SASS-19(L)R	Reinterview	98	30	0	0.00	0	0	0.00	01/12/04
SASS-2(R)	Reinterview	98	30	0	0.00	0	0	0.00	01/13/04
SASS-3(R)	Reinterview	95	30	0	0.00	0	0	0.00	01/13/04
SASS-4A(R)	Reinterview	60	30	0	0.00	0	0	0.00	01/13/04
SASS-4B(R)	Reinterview	26	30	0	0.00	0	0	0.00	01/13/04
SASS-10	Reminder	1,154	60	0	0.00	0	0	0.00	01/13/04
SASS-10	Reminder	123	60	0	0.00	0	0	0.00	01/14/04
SASS-17(L)R	Reinterview	81	30	0	0.00	0	0	0.00	01/22/04
SASS-18(L)R	Reinterview	86	30	0	0.00	0	0	0.00	01/22/04
SASS-19(L)R	Reinterview	90	30	0	0.00	0	0	0.00	01/22/04
SASS-2(R)	Reinterview	90	30	0	0.00	0	0	0.00	01/22/04
SASS-3(R)	Reinterview	81	30	0	0.00	0	0	0.00	01/22/04
SASS-4A(R)	Reinterview	64	30	0	0.00	0	0	0.00	01/22/04
SASS-4B(R)	Reinterview	22	22	0	0.00	0	0	0.00	01/22/04
SASS-10	Reminder	279	60	0	0.00	0	0	0.00	01/22/04
SASS-17(L)R	Reinterview	70	30	0	0.00	0	0	0.00	01/27/04
SASS-18(L)R	Reinterview	53	30	0	0.00	0	0	0.00	01/27/04
SASS-19(L)R	Reinterview	78	30	0	0.00	0	0	0.00	01/27/04
SASS-2(R)	Reinterview	78	30	0	0.00	0	0	0.00	01/27/04
SASS-3(R)	Reinterview	70	30	0	0.00	0	0	0.00	01/27/04
SASS-4A(R)	Reinterview	34	30	0	0.00	0	0	0.00	01/27/04
SASS-4B(R)	Reinterview	19	19	0	0.00	0	0	0.00	01/27/04
SASS-10	Reminder	257	60	0	0.00	0	0	0.00	01/29/04
SASS-10	Reminder	201	60	0	0.00	0	0	0.00	02/03/04
SASS-17(L)R	Reinterview	69	30	0	0.00	0	0	0.00	02/03/04
SASS-18(L)R	Reinterview	38	30	0	0.00	0	0	0.00	02/03/04
SASS-19(L)R	Reinterview	80	30	0	0.00	0	0	0.00	02/03/04
SASS-2(R)	Reinterview	80	30	0	0.00	0	0	0.00	02/04/04
SASS-3(R)	Reinterview	69	30	0	0.00	0	0	0.00	02/04/04
SASS-4A(R)	Reinterview	31	30	0	0.00	0	0	0.00	02/04/04
SASS-4B(R)	Reinterview	7	7	0	0.00	0	0	0.00	02/04/04
SASS-17(L)R	Reinterview	75	30	0	0.00	0	0	0.00	02/09/04

See notes at end of exhibit.

**Exhibit O-13. Printing (Docuprint) quality assurance for reinterview questionnaires, by type of inspection and form: 2003–04—Continued**

Form <sup>1</sup>	Mailout	Number printed	Sample inspection			Expanded inspection			Date
			Number inspected	Number defective	Percent defects	Number inspected	Number defective	Percent defects	
SASS-18(L)R	Reinterview	94	30	0	0.00	0	0	0.00	02/09/04
SASS-19(L)R	Reinterview	69	30	0	0.00	0	0	0.00	02/09/04
SASS-2(R)	Reinterview	70	31	0	0.00	0	0	0.00	02/10/04
SASS-3(R)	Reinterview	76	31	0	0.00	0	0	0.00	02/10/04
SASS-4A(R)	Reinterview	58	30	0	0.00	0	0	0.00	02/10/04
SASS-4B(R)	Reinterview	36	30	0	0.00	0	0	0.00	02/10/04
SASS-10	Reminder	187	60	0	0.00	0	0	0.00	02/11/04
SASS-10	Reminder	238	60	0	0.00	0	0	0.00	02/19/04
SASS-17(L)R	Reinterview	390	30	0	0.00	0	0	0.00	02/19/04
SASS-18(L)R	Reinterview	84	30	0	0.00	0	0	0.00	02/19/04
SASS-19(L)R	Reinterview	115	30	0	0.00	0	0	0.00	02/19/04
SASS-2(R)	Reinterview	115	30	0	0.00	0	0	0.00	02/22/04
SASS-3(R)	Reinterview	390	30	0	0.00	0	0	0.00	02/22/04
SASS-4A(R)	Reinterview	64	30	0	0.00	0	0	0.00	02/22/04
SASS-4B(R)	Reinterview	20	20	0	0.00	0	0	0.00	02/22/04
SASS-17(L)R	Reinterview	43	30	0	0.00	0	0	0.00	02/25/04
SASS-18(L)R	Reinterview	41	30	0	0.00	0	0	0.00	02/25/04
SASS-19(L)R	Reinterview	43	30	0	0.00	0	0	0.00	02/25/04
SASS-2(R)	Reinterview	43	30	0	0.00	0	0	0.00	02/25/04
SASS-3(R)	Reinterview	43	30	0	0.00	0	0	0.00	02/25/04
SASS-4A(R)	Reinterview	28	28	0	0.00	0	0	0.00	02/25/04
SASS-4B(R)	Reinterview	13	13	0	0.00	0	0	0.00	02/25/04
SASS-17(L)R	Reinterview	37	30	0	0.00	0	0	0.00	02/27/04
SASS-18(L)R	Reinterview	31	30	0	0.00	0	0	0.00	02/27/04
SASS-19(L)R	Reinterview	34	30	0	0.00	0	0	0.00	02/27/04
SASS-2(R)	Reinterview	34	30	0	0.00	0	0	0.00	03/01/04
SASS-3(R)	Reinterview	37	30	0	0.00	0	0	0.00	03/01/04
SASS-4A(R)	Reinterview	17	17	0	0.00	0	0	0.00	03/01/04
SASS-4B(R)	Reinterview	14	14	0	0.00	0	0	0.00	03/01/04
SASS-17(L)R	Reinterview	678	30	0	0.00	0	0	0.00	03/02/04
SASS-18(L)R	Reinterview	704	30	0	0.00	0	0	0.00	03/02/04
SASS-19(L)R	Reinterview	750	30	0	0.00	0	0	0.00	03/02/04
SASS-2(R)	Reinterview	752	32	0	0.00	0	0	0.00	03/03/04
SASS-3(R)	Reinterview	678	30	0	0.00	0	0	0.00	03/03/04
SASS-4A(R)	Reinterview	498	30	0	0.00	0	0	0.00	03/03/04

See notes at end of exhibit.

**Exhibit O-13. Printing (Docuprint) quality assurance for reinterview questionnaires, by type of inspection and form: 2003–04—Continued**

Form <sup>1</sup>	Mailout	Number printed	Sample inspection			Expanded inspection			Date
			Number inspected	Number defective	Percent defects	Number inspected	Number defective	Percent defects	
SASS-4B(R)	Reinterview	210	34	0	0.00	0	0	0.00	03/03/04
SASS-10	Reminder	589	60	0	0.00	0	0	0.00	03/03/04
SASS-10	Reminder	127	60	0	0.00	0	0	0.00	03/04/04
SASS-10	Reminder	102	60	0	0.00	0	0	0.00	03/08/04
SASS-17(L)R	Reinterview	20	20	0	0.00	0	0	0.00	03/08/04
SASS-18(L)R	Reinterview	20	20	0	0.00	0	0	0.00	03/08/04
SASS-19(L)R	Reinterview	25	25	0	0.00	0	0	0.00	03/08/04
SASS-2(R)	Reinterview	25	25	0	0.00	0	0	0.00	03/08/04
SASS-3(R)	Reinterview	20	20	0	0.00	0	0	0.00	03/08/04
SASS-4A(R)	Reinterview	20	20	0	0.00	0	0	0.00	03/08/04
SASS-17(L)R	Reinterview	27	27	0	0.00	0	0	0.00	03/16/04
SASS-18(L)R	Reinterview	16	16	0	0.00	0	0	0.00	03/16/04
SASS-19(L)R	Reinterview	20	20	0	0.00	0	0	0.00	03/16/04
SASS-2(R)	Reinterview	20	20	0	0.00	0	0	0.00	03/16/04
SASS-3(R)	Reinterview	27	27	0	0.00	0	0	0.00	03/16/04
SASS-4A(R)	Reinterview	7	7	0	0.00	0	0	0.00	03/16/04
SASS-4B(R)	Reinterview	9	9	0	0.00	0	0	0.00	03/16/04
SASS-10	Reminder	65	50	0	0.00	0	0	0.00	03/16/04
SASS-17(L)R	Reinterview	3	3	0	0.00	0	0	0.00	03/22/04
SASS-18(L)R	Reinterview	1	1	0	0.00	0	0	0.00	03/22/04
SASS-3(R)	Reinterview	1	1	0	0.00	0	0	0.00	03/23/04
SASS-4A(R)	Reinterview	1	1	0	0.00	0	0	0.00	03/23/04
SASS-10	Reminder	63	63	0	0.00	0	0	0.00	03/23/04
SASS-2(R)	Reinterview	5	5	0	0.00	0	0	0.00	03/31/04
SASS-17(L)R	Reinterview	1	1	0	0.00	0	0	0.00	03/31/04
SASS-18(L)R	Reinterview	6	6	0	0.00	0	0	0.00	03/31/04
SASS-19(L)R	Reinterview	14	14	0	0.00	0	0	0.00	03/31/04
SASS-2(R)	Reinterview	9	9	0	0.00	0	0	0.00	03/31/04
SASS-3(R)	Reinterview	1	1	0	0.00	0	0	0.00	03/31/04
SASS-4A(R)	Reinterview	4	4	0	0.00	0	0	0.00	03/31/04
SASS-4B(R)	Reinterview	2	2	0	0.00	0	0	0.00	03/31/04
SASS-10	Reminder	4	4	0	0.00	0	0	0.00	03/31/04
SASS-18(L)R	Reinterview	1	1	0	0.00	0	0	0.00	04/06/04
SASS-10	Reminder	16	16	0	0.00	0	0	0.00	04/07/04
SASS-10	Reminder	5	5	0	0.00	0	0	0.00	04/07/04

See notes at end of exhibit.

**Exhibit O-13. Printing (Docuprint) quality assurance for reinterview questionnaires, by type of inspection and form: 2003–04—Continued**

Form <sup>1</sup>	Mailout	Number printed	Sample inspection			Expanded inspection			Date
			Number inspected	Number defective	Percent defects	Number inspected	Number defective	Percent defects	
SASS-4B(R)	Reinterview	1	1	0	0.00	0	0	0.00	04/07/04
SASS-17(L)R	Reinterview	3	3	0	0.00	0	0	0.00	04/09/04
SASS-18(L)R	Reinterview	1	1	0	0.00	0	0	0.00	04/09/04
SASS-19(L)R	Reinterview	4	4	0	0.00	0	0	0.00	04/09/04
SASS-2(R)	Reinterview	4	4	0	0.00	0	0	0.00	04/13/04
SASS-3(R)	Reinterview	3	3	0	0.00	0	0	0.00	04/13/04
SASS-4B(R)	Reinterview	1	1	0	0.00	0	0	0.00	04/13/04
SASS-10	Reminder	1	1	0	0.00	0	0	0.00	04/16/04

<sup>1</sup> SASS-2(R) refers to the Principal Reinterview Questionnaire. SASS-3(R) refers to the School Reinterview Questionnaire. SASS-4A(R) refers to the Public Teacher Reinterview Questionnaire and SASS-4B(R) to the Private Teacher Reinterview Questionnaire. SASS-10 refers to a postcard. SASS-17(L)R, SASS-18(L)R, and SASS-19(L)R refer to letters.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: *Quality Assurance for Keying and Mailout Operations*, U.S. Census Bureau, 2005.

**Exhibit O-14. Duplo booklet maker inspection quality assurance for reinterview questionnaires, by type of inspection and form: 2003–04**

Form <sup>1</sup>	Mailout	Number received	Sample inspection			Expanded inspection			Date
			Number inspected	Number defective	Percent defects	Number inspected	Number defective	Percent defects	
Duplo total		8,000	1,720	5	0.29	0	0	0.00	
SASS-2(R)	Reinterview	272	30	0	0.00	0	0	0.00	12/08/03
SASS-3(R)	Reinterview	285	30	0	0.00	0	0	0.00	12/08/03
SASS-2(R)	Reinterview	124	30	0	0.00	0	0	0.00	12/09/03
SASS-3(R)	Reinterview	85	30	0	0.00	0	0	0.00	12/09/03
SASS-2(R)	Reinterview	124	30	0	0.00	0	0	0.00	12/09/03
SASS-3(R)	Reinterview	85	30	0	0.00	0	0	0.00	12/09/03
SASS-4A(R)	Reinterview	23	23	0	0.00	0	0	0.00	12/09/03
SASS-4B(R)	Reinterview	2	2	0	0.00	0	0	0.00	12/09/03
SASS-2(R)	Reinterview	573	30	0	0.00	0	0	0.00	12/17/03
SASS-3(R)	Reinterview	214	30	0	0.00	0	0	0.00	12/17/03
SASS-4A(R)	Reinterview	327	30	0	0.00	0	0	0.00	12/17/03
SASS-4B(R)	Reinterview	251	30	0	0.00	0	0	0.00	12/17/03
SASS-4B(R)	Reinterview	75	5	5 <sup>2</sup>	100.00	0	0	0.00	01/07/04
SASS-2(R)	Reinterview	349	30	0	0.00	0	0	0.00	01/09/04
SASS-3(R)	Reinterview	266	30	0	0.00	0	0	0.00	01/09/04
SASS-4A(R)	Reinterview	465	31	0	0.00	0	0	0.00	01/09/04
SASS-4B(R)	Reinterview	75	30	0	0.00	0	0	0.00	01/09/04
SASS-2(R)	Reinterview	40	40	0	0.00	0	0	0.00	01/12/04
SASS-3(R)	Reinterview	30	30	0	0.00	0	0	0.00	01/12/04
SASS-4A(R)	Reinterview	43	43	0	0.00	0	0	0.00	01/12/04
SASS-4B(R)	Reinterview	10	10	0	0.00	0	0	0.00	01/12/04
SASS-2(R)	Reinterview	98	30	0	0.00	0	0	0.00	01/13/04
SASS-3(R)	Reinterview	95	30	0	0.00	0	0	0.00	01/13/04
SASS-4A(R)	Reinterview	60	30	0	0.00	0	0	0.00	01/13/04
SASS-4B(R)	Reinterview	26	26	0	0.00	0	0	0.00	01/13/04
SASS-2(R)	Reinterview	90	30	0	0.00	0	0	0.00	01/26/04
SASS-3(R)	Reinterview	81	30	0	0.00	0	0	0.00	01/26/04
SASS-4A(R)	Reinterview	64	30	0	0.00	0	0	0.00	01/26/04
SASS-4B(R)	Reinterview	22	22	0	0.00	0	0	0.00	01/26/04
SASS-2(R)	Reinterview	78	30	0	0.00	0	0	0.00	01/27/04
SASS-3(R)	Reinterview	70	30	0	0.00	0	0	0.00	01/27/04
SASS-4A(R)	Reinterview	34	30	0	0.00	0	0	0.00	01/27/04
SASS-4B(R)	Reinterview	19	19	0	0.00	0	0	0.00	01/27/04
SASS-2(R)	Reinterview	80	30	0	0.00	0	0	0.00	02/04/04
SASS-3(R)	Reinterview	69	30	0	0.00	0	0	0.00	02/04/04

See notes at end of exhibit.

**Exhibit O-14. Duplo booklet maker inspection quality assurance for reinterview questionnaires, by type of inspection and form: 2003–04—Continued**

Form <sup>1</sup>	Mailout	Number received	Sample inspection			Expanded inspection			Date
			Number inspected	Number defective	Percent defects	Number inspected	Number defective	Percent defects	
SASS-4A(R)	Reinterview	31	30	0	0.00	0	0	0.00	02/04/04
SASS-4B(R)	Reinterview	7	7	0	0.00	0	0	0.00	02/04/04
SASS-2(R)	Reinterview	70	31	0	0.00	0	0	0.00	02/10/04
SASS-3(R)	Reinterview	76	31	0	0.00	0	0	0.00	02/10/04
SASS-4A(R)	Reinterview	58	30	0	0.00	0	0	0.00	02/10/04
SASS-4B(R)	Reinterview	36	30	0	0.00	0	0	0.00	02/10/04
SASS-2(R)	Reinterview	115	30	0	0.00	0	0	0.00	02/23/04
SASS-3(R)	Reinterview	390	30	0	0.00	0	0	0.00	02/23/04
SASS-4A(R)	Reinterview	64	30	0	0.00	0	0	0.00	02/23/04
SASS-4B(R)	Reinterview	20	20	0	0.00	0	0	0.00	02/23/04
SASS-2(R)	Reinterview	43	30	0	0.00	0	0	0.00	02/26/04
SASS-3(R)	Reinterview	43	30	0	0.00	0	0	0.00	02/26/04
SASS-4A(R)	Reinterview	28	28	0	0.00	0	0	0.00	02/26/04
SASS-4B(R)	Reinterview	13	13	0	0.00	0	0	0.00	02/26/04
SASS-2(R)	Reinterview	34	30	0	0.00	0	0	0.00	03/01/04
SASS-3(R)	Reinterview	37	30	0	0.00	0	0	0.00	03/01/04
SASS-4A(R)	Reinterview	17	17	0	0.00	0	0	0.00	03/01/04
SASS-4B(R)	Reinterview	14	14	0	0.00	0	0	0.00	03/01/04
SASS-2(R)	Reinterview	752	32	0	0.00	0	0	0.00	03/04/04
SASS-3(R)	Reinterview	678	30	0	0.00	0	0	0.00	03/04/04
SASS-4A(R)	Reinterview	498	30	0	0.00	0	0	0.00	03/04/04
SASS-4B(R)	Reinterview	210	34	0	0.00	0	0	0.00	03/04/04
SASS-2(R)	Reinterview	25	25	0	0.00	0	0	0.00	03/09/04
SASS-3(R)	Reinterview	20	20	0	0.00	0	0	0.00	03/09/04
SASS-4A(R)	Reinterview	20	20	0	0.00	0	0	0.00	03/09/04
SASS-2(R)	Reinterview	20	20	0	0.00	0	0	0.00	03/17/04
SASS-3(R)	Reinterview	27	27	0	0.00	0	0	0.00	03/17/04
SASS-4A(R)	Reinterview	7	7	0	0.00	0	0	0.00	03/17/04
SASS-4B(R)	Reinterview	9	9	0	0.00	0	0	0.00	03/17/04
SASS-3(R)	Reinterview	3	3	0	0.00	0	0	0.00	03/23/04
SASS-4A(R)	Reinterview	1	1	0	0.00	0	0	0.00	03/23/04
SASS-2(R)	Reinterview	5	5	0	0.00	0	0	0.00	04/01/04
SASS-2(R)	Reinterview	9	9	0	0.00	0	0	0.00	04/01/04
SASS-3(R)	Reinterview	1	1	0	0.00	0	0	0.00	04/01/04
SASS-4A(R)	Reinterview	4	4	0	0.00	0	0	0.00	04/01/04

See notes at end of exhibit.

**Exhibit O-14. Duplo booklet maker inspection quality assurance for reinterview questionnaires, by type of inspection and form: 2003–04—Continued**

Form <sup>1</sup>	Mailout	Number received	Sample inspection			Expanded inspection			Date
			Number inspected	Number defective	Percent defects	Number inspected	Number defective	Percent defects	
SASS-4B(R)	Reinterview	2	2	0	0.00	0	0	0.00	04/01/04
SASS-4B(R)	Reinterview	1	1	0	0.00	0	0	0.00	04/08/04
SASS-2(R)	Reinterview	4	4	0	0.00	0	0	0.00	04/14/04
SASS-3(R)	Reinterview	3	3	0	0.00	0	0	0.00	04/14/04
SASS-4B(R)	Reinterview	1	1	0	0.00	0	0	0.00	04/14/04

<sup>1</sup> SASS-2(R) refers to the Principal Reinterview Questionnaire. SASS-3(R) refers to the School Reinterview Questionnaire. SASS-4A(R) refers to the Public Teacher Reinterview Questionnaire and SASS-4B(R) to the Private Teacher Reinterview Questionnaire.

<sup>2</sup> Rejected—Five inadequately/incorrectly bound pages (50 booklets had only one staple).

NOTE: Detail may not sum to totals because of rounding.

SOURCE: *Quality Assurance for Keying and Mailout Operations*, U.S. Census Bureau, 2005.

**Exhibit O-15. Package assembly quality assurance for reinterview questionnaires, by type of inspection and form: 2003–04**

Form <sup>1</sup>	Mailout	Number received	Sample inspection			Expanded inspection			Date
			Number inspected	Number defective	Percent defects	Number inspected	Number defective	Percent defects	
Package assembly total		7,707	7,707	13	0.17	0	0	0.00	
SASS-2(R)	Reinterview	272	272	0	0.00	0	0	0.00	12/09/03
SASS-3(R)	Reinterview	285	285	0	0.00	0	0	0.00	12/09/03
SASS-4A(R)	Reinterview	23	23	0	0.00	0	0	0.00	12/09/03
SASS-4B(R)	Reinterview	2	2	0	0.00	0	0	0.00	12/09/03
SASS-2(R)	Reinterview	124	124	0	0.00	0	0	0.00	12/11/03
SASS-3(R)	Reinterview	85	85	0	0.00	0	0	0.00	12/11/03
SASS-2(R)	Reinterview	573	573	5 <sup>2</sup>	0.87	0	0	0.00	12/19/03
SASS-3(R)	Reinterview	214	214	6 <sup>3</sup>	2.80	0	0	0.00	12/19/03
SASS-4A(R)	Reinterview	327	327	0	0.00	0	0	0.00	12/19/03
SASS-4B(R)	Reinterview	251	251	2 <sup>4</sup>	0.80	0	0	0.00	12/19/03
SASS-2(R)	Reinterview	349	349	0	0.00	0	0	0.00	01/08/04
SASS-3(R)	Reinterview	266	266	0	0.00	0	0	0.00	01/08/04
SASS-4A(R)	Reinterview	464	464	0	0.00	0	0	0.00	01/08/04
SASS-4B(R)	Reinterview	75	75	0	0.00	0	0	0.00	01/08/04
SASS-2(R)	Reinterview	40	40	0	0.00	0	0	0.00	01/13/04
SASS-3(R)	Reinterview	30	30	0	0.00	0	0	0.00	01/13/04
SASS-4A(R)	Reinterview	43	43	0	0.00	0	0	0.00	01/13/04
SASS-4B(R)	Reinterview	10	10	0	0.00	0	0	0.00	01/13/04
SASS-2(R)	Reinterview	98	98	0	0.00	0	0	0.00	01/14/04
SASS-3(R)	Reinterview	95	95	0	0.00	0	0	0.00	01/14/04
SASS-4A(R)	Reinterview	60	60	0	0.00	0	0	0.00	01/14/04
SASS-4B(R)	Reinterview	26	26	0	0.00	0	0	0.00	01/14/04
SASS-2(R)	Reinterview	90	90	0	0.00	0	0	0.00	01/26/04
SASS-3(R)	Reinterview	81	81	0	0.00	0	0	0.00	01/26/04
SASS-4A(R)	Reinterview	64	64	0	0.00	0	0	0.00	01/26/04
SASS-4B(R)	Reinterview	22	22	0	0.00	0	0	0.00	01/26/04
SASS-2(R)	Reinterview	78	78	0	0.00	0	0	0.00	01/28/04
SASS-3(R)	Reinterview	70	70	0	0.00	0	0	0.00	01/28/04
SASS-4A(R)	Reinterview	34	34	0	0.00	0	0	0.00	01/28/04
SASS-4B(R)	Reinterview	19	19	0	0.00	0	0	0.00	01/28/04
SASS-2(R)	Reinterview	80	80	0	0.00	0	0	0.00	02/05/04
SASS-3(R)	Reinterview	69	69	0	0.00	0	0	0.00	02/05/04
SASS-4A(R)	Reinterview	31	31	0	0.00	0	0	0.00	02/05/04
SASS-4B(R)	Reinterview	7	7	0	0.00	0	0	0.00	02/05/04
SASS-2(R)	Reinterview	69	69	0	0.00	0	0	0.00	02/10/04

See notes at end of exhibit.

**Exhibit O-15. Package assembly quality assurance for reinterview questionnaires, by type of inspection and form: 2003–04—Continued**

Form <sup>1</sup>	Mailout	Number received	Sample inspection			Expanded inspection			Date
			Number inspected	Number defective	Percent defects	Number inspected	Number defective	Percent defects	
SASS-3(R)	Reinterview	75	75	0	0.00	0	0	0.00	02/10/04
SASS-4A(R)	Reinterview	58	58	0	0.00	0	0	0.00	02/10/04
SASS-4B(R)	Reinterview	36	36	0	0.00	0	0	0.00	02/10/04
SASS-2(R)	Reinterview	115	115	0	0.00	0	0	0.00	02/24/04
SASS-3(R)	Reinterview	390	390	0	0.00	0	0	0.00	02/24/04
SASS-4A(R)	Reinterview	64	64	0	0.00	0	0	0.00	02/24/04
SASS-4B(R)	Reinterview	20	20	0	0.00	0	0	0.00	02/24/04
SASS-2(R)	Reinterview	43	43	0	0.00	0	0	0.00	02/27/04
SASS-3(R)	Reinterview	43	43	0	0.00	0	0	0.00	02/27/04
SASS-4A(R)	Reinterview	28	28	0	0.00	0	0	0.00	02/27/04
SASS-4B(R)	Reinterview	13	13	0	0.00	0	0	0.00	02/27/04
SASS-2(R)	Reinterview	34	34	0	0.00	0	0	0.00	03/02/04
SASS-3(R)	Reinterview	37	37	0	0.00	0	0	0.00	03/02/04
SASS-4A(R)	Reinterview	17	17	0	0.00	0	0	0.00	03/02/04
SASS-4B(R)	Reinterview	14	14	0	0.00	0	0	0.00	03/02/04
SASS-2(R)	Reinterview	750	750	0	0.00	0	0	0.00	03/03/04
SASS-3(R)	Reinterview	678	678	0	0.00	0	0	0.00	03/03/04
SASS-4A(R)	Reinterview	498	498	0	0.00	0	0	0.00	03/03/04
SASS-4B(R)	Reinterview	206	206	0	0.00	0	0	0.00	03/03/04
SASS-2(R)	Reinterview	25	25	0	0.00	0	0	0.00	03/09/04
SASS-3(R)	Reinterview	20	20	0	0.00	0	0	0.00	03/09/04
SASS-4A(R)	Reinterview	20	20	0	0.00	0	0	0.00	03/09/04
SASS-2(R)	Reinterview	20	20	0	0.00	0	0	0.00	03/17/04
SASS-3(R)	Reinterview	27	27	0	0.00	0	0	0.00	03/17/04
SASS-4A(R)	Reinterview	7	7	0	0.00	0	0	0.00	03/17/04
SASS-4B(R)	Reinterview	9	9	0	0.00	0	0	0.00	03/17/04
SASS-3(R)	Reinterview	3	3	0	0.00	0	0	0.00	03/23/04
SASS-4A(R)	Reinterview	1	1	0	0.00	0	0	0.00	03/23/04
SASS-2(R)	Reinterview	5	5	0	0.00	0	0	0.00	04/01/04
SASS-2(R)	Reinterview	9	9	0	0.00	0	0	0.00	04/01/04
SASS-3(R)	Reinterview	1	1	0	0.00	0	0	0.00	04/01/04
SASS-4A(R)	Reinterview	4	4	0	0.00	0	0	0.00	04/01/04
SASS-4B(R)	Reinterview	2	2	0	0.00	0	0	0.00	04/01/04
SASS-4B(R)	Reinterview	1	1	0	0.00	0	0	0.00	04/08/04
SASS-2(R)	Reinterview	4	4	0	0.00	0	0	0.00	04/14/04

See notes at end of exhibit.

**Exhibit O-15. Package assembly quality assurance for reinterview questionnaires, by type of inspection and form: 2003–04—Continued**

Form <sup>1</sup>	Mailout	Number received	Sample inspection			Expanded inspection			Date
			Number inspected	Number defective	Percent defects	Number inspected	Number defective	Percent defects	
SASS-3(R)	Reinterview	3	3	0	0.00	0	0	0.00	04/14/04
SASS-4B(R)	Reinterview	1	1	0	0.00	0	0	0.00	04/14/04

<sup>1</sup> SASS-2(R) refers to the Principal Reinterview Questionnaire. SASS-3(R) refers to the School Reinterview Questionnaire. SASS-4A(R) refers to the Public Teacher Reinterview Questionnaire and SASS-4B(R) to the Private Teacher Reinterview Questionnaire.

<sup>2</sup> Nine extra cover letter/flyer.

<sup>3</sup> Six extra cover letter/flyer.

<sup>4</sup> Six extra cover letter/flyer.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: *Quality Assurance for Keying and Mailout Operations*, U.S. Census Bureau, 2005.

## Appendix P. Changes Made to Variables During the Computer Edit, by Data File

The tables in this appendix show the number of edit changes made to responses for each of the variables within each data file during the computer edits. (See chapter 7 for more details about the computer edits.) The tables are as follows:

Table	Page
P-1. Number of changes and percentage of records affected during computer edit of the public school district data file, by variable: 2003–04.....	P-2
P-2. Number of changes and percentage of records affected during computer edit of the public school principal data file, by variable: 2003–04.....	P-6
P-3. Number of changes and percentage of records affected during computer edit of the private school principal data file, by variable: 2003–04 .....	P-9
P-4. Number of changes and percentage of records affected during computer edit of the BIA school principal data file, by variable: 2003–04 .....	P-12
P-5. Number of changes and percentage of records affected during computer edit of the public school data file, by variable: 2003–04.....	P-15
P-6. Number of changes and percentage of records affected during computer edit of the private school data file, by variable: 2003–04.....	P-18
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P-10. Number of changes and percentage of records affected during computer edit of the BIA school teacher data file, by variable: 2003–04 .....	P-39
P-11. Number of changes and percentage of records affected during computer edit of the public school library media center data file, by variable: 2003–04.....	P-44
P-12. Number of changes and percentage of records affected during computer edit of the BIA school library media center data file, by variable: 2003–04.....	P-46

**Table P-1. Number of changes and percentage of records affected during computer edit of the public school district data file, by variable: 2003–04**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
D0025	39	0.88	D0070	106	2.40
D0026	99	2.24	D0071	45	1.02
D0027	109	2.47	D0072	60	1.36
D0028	124	2.80	D0077	298	6.74
D0029	3,026	68.45	D0078	120	2.71
D0035	52	1.18	D0079	190	4.30
D0036	1,235	27.93	D0080	182	4.12
D0037	1,237	27.98	D0081	181	4.09
D0038	1,237	27.98	D0082	192	4.34
D0039	1,237	27.98	D0083	195	4.41
D0040	1,237	27.98	D0084	160	3.62
D0041	1,237	27.98	D0085	197	4.46
D0042	1,237	27.98	D0086	214	4.84
D0043	1,237	27.98	D0087	100	2.26
D0044	1,237	27.98	D0088	109	2.47
D0045	1,237	27.98	D0089	106	2.40
D0046	1,237	27.98	D0090	104	2.35
D0047	1,237	27.98	D0091	206	4.66
D0048	1,237	27.98	D0092	376	8.50
D0049	297	6.72	D0093	208	4.70
D0050	61	1.38	D0094	137	3.10
D0051	120	2.71	D0095	119	2.69
D0052	303	6.85	D0096	81	1.83
D0053	341	7.71	D0097	149	3.37
D0054	323	7.31	D0098	191	4.32
D0055	352	7.96	D0099	187	4.23
D0056	391	8.84	D0100	192	4.34
D0057	336	7.60	D0101	215	4.86
D0058	100	2.26	D0102	70	1.58
D0059	263	5.95	D0103	137	3.10
D0060	145	3.28	D0104	248	5.61
D0061	1,049	23.73	D0105	273	6.18
D0062	578	13.07	D0106	282	6.38
D0063	96	2.17	D0107	283	6.40
D0064	2	0.05	D0113	152	3.44
D0065	410	9.27	D0114	150	3.39
D0066	426	9.64	D0115	178	4.03
D0067	459	10.38	D0116	5	0.11
D0068	487	11.02	D0117	185	4.18
D0069	487	11.02	D0118	1	0.02

See notes at end of table.

**Table P-1. Number of changes and percentage of records affected during computer edit of the public school district data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
D0119	182	4.12	D0164	262	5.93
D0120	3	0.07	D0165	263	5.95
D0121	187	4.23	D0166	257	5.81
D0122	1,441	32.59	D0167	282	6.38
D0123	1,437	32.50	D0168	207	4.68
D0124	85	1.92	D0169	173	3.91
D0125	93	2.10	D0170	248	5.61
D0126	118	2.67	D0171	249	5.63
D0127	101	2.28	D0172	251	5.68
D0128	119	2.69	D0173	257	5.81
D0129	100	2.26	D0174	258	5.84
D0130	102	2.31	D0175	264	5.97
D0131	107	2.42	D0176	260	5.88
D0137	38	0.86	D0177	260	5.88
D0138	46	1.04	D0178	265	5.99
D0139	49	1.11	D0179	258	5.84
D0140	49	1.11	D0180	259	5.86
D0141	141	3.19	D0181	258	5.84
D0142	73	1.65	D0182	251	5.68
D0143	113	2.56	D0183	293	6.63
D0144	121	2.74	D0184	209	4.73
D0145	89	2.01	D0185	221	5.00
D0146	93	2.10	D0186	255	5.77
D0147	87	1.97	D0187	255	5.77
D0148	100	2.26	D0188	258	5.84
D0149	108	2.44	D0189	262	5.93
D0150	91	2.06	D0190	262	5.93
D0151	115	2.60	D0191	270	6.11
D0152	134	3.03	D0192	264	5.97
D0153	155	3.51	D0193	266	6.02
D0154	253	5.72	D0194	274	6.20
D0155	254	5.75	D0195	262	5.93
D0156	255	5.77	D0196	265	5.99
D0157	258	5.84	D0197	266	6.02
D0158	256	5.79	D0198	259	5.86
D0159	263	5.95	D0199	279	6.31
D0160	260	5.88	D0200	250	5.65
D0161	260	5.88	D0201	212	4.80
D0162	265	5.99	D0202	272	6.15
D0163	257	5.81	D0203	272	6.15

See notes at end of table.

**Table P-1. Number of changes and percentage of records affected during computer edit of the public school district data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
D0204	273	6.18	D0249	160	3.62
D0205	279	6.31	D0255	123	2.78
D0206	277	6.27	D0256	690	15.61
D0207	284	6.42	D0257	280	6.33
D0208	280	6.33	D0258	275	6.22
D0209	280	6.33	D0259	277	6.27
D0210	289	6.54	D0260	284	6.42
D0211	277	6.27	D0261	280	6.33
D0212	280	6.33	D0262	295	6.67
D0213	283	6.40	D0263	290	6.56
D0214	278	6.29	D0264	265	5.99
D0215	292	6.60	D0265	344	7.78
D0216	263	5.95	D0266	389	8.80
D0217	247	5.59	D0267	363	8.21
D0218	986	22.30	D0268	355	8.03
D0219	489	11.06	D0269	385	8.71
D0220	1,035	23.41	D0270	412	9.32
D0221	1,039	23.50	D0276	100	2.26
D0222	1,020	23.07	D0277	537	12.15
D0223	227	5.13	D0278	544	12.30
D0224	986	22.30	D0279	1,683	38.07
D0225	734	16.60	D0280	557	12.60
D0226	1,287	29.11	D0281	567	12.83
D0227	1,284	29.04	D0282	2,173	49.15
D0228	1,277	28.88	D0283	205	4.64
D0229	1,283	29.02	D0284	1,677	37.93
D0230	1,284	29.04	D0285	231	5.23
D0231	1,282	29.00	D0286	210	4.75
D0232	1,274	28.82	D0292	117	2.65
D0233	1,277	28.88	D0293	127	2.87
D0239	43	0.97	D0294	140	3.17
D0240	115	2.60	D0295	119	2.69
D0241	93	2.10	D0296	126	2.85
D0242	95	2.15	D0297	128	2.90
D0243	118	2.67	D0298	136	3.08
D0244	111	2.51	D0299	116	2.62
D0245	549	12.42	D0300	132	2.99
D0246	81	1.83	D0301	131	2.96
D0247	236	5.34	D0302	128	2.90
D0248	200	4.52	D0303	123	2.78

See notes at end of table.

**Table P-1. Number of changes and percentage of records affected during computer edit of the public school district data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
D0304	176	3.98	D0334	357	8.08
D0305	183	4.14	D0335	365	8.26
D0306	193	4.37	D0336	368	8.32
D0307	128	2.90	D0337	368	8.32
D0308	234	5.29	D0338	364	8.23
D0309	231	5.23	D0339	365	8.26
D0310	253	5.72	D0340	372	8.41
D0311	270	6.11	D0341	359	8.12
D0312	219	4.95	D0342	366	8.28
D0313	252	5.70	D0343	369	8.35
D0314	313	7.08	D0344	368	8.32
D0315	184	4.16	D0350	147	3.33
D0316	205	4.64	D0351	319	7.22
D0317	207	4.68	D0352	520	11.76
D0318	141	3.19	D0353	497	11.24
D0319	278	6.29	D0354	475	10.74
D0320	926	20.95	D0355	475	10.74
D0321	908	20.54	D0356	189	4.28
D0322	904	20.45	D0357	360	8.14
D0323	905	20.47	D0358	518	11.72
D0324	1,031	23.32	D0359	585	13.23
D0325	1,018	23.03	D0360	292	6.60
D0326	1,037	23.46	D0361	352	7.96
D0327	1,031	23.32	D0362	536	12.12
D0328	1,032	23.34			
D0329	1,029	23.28			
D0330	1,032	23.34			
D0331	1,033	23.37			
D0332	272	6.15			
D0333	390	8.82			

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School District Documentation Data File," 2003–04.

**Table P-2. Number of changes and percentage of records affected during computer edit of the public school principal data file, by variable: 2003–04**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
A0025	184	2.3	A0071	62	0.8
A0026	15	0.2	A0072	57	0.7
A0027	51	0.6	A0073	112	1.4
A0028	1,201	14.7	A0074	85	1.0
A0029	2,019	24.8	A0075	90	1.1
A0030	114	1.4	A0076	77	0.9
A0031	225	2.8	A0077	77	0.9
A0032	91	1.1	A0078	88	1.1
A0033	251	3.1	A0079	81	1.0
A0034	295	3.6	A0080	86	1.1
A0035	178	2.2	A0081	151	1.9
A0036	152	1.9	A0082	95	1.2
A0037	67	0.8	A0083	116	1.4
A0038	70	0.9	A0084	77	0.9
A0039	10	0.1	A0085	134	1.6
A0040	139	1.7	A0086	92	1.1
A0041	155	1.9	A0087	85	1.0
A0042	60	0.7	A0088	139	1.7
A0043	35	0.4	A0089	91	1.1
A0044	26	0.3	A0090	97	1.2
A0045	39	0.5	A0091	68	0.8
A0046	42	0.5	A0092	91	1.1
A0047	32	0.4	A0093	88	1.1
A0048	32	0.4	A0094	74	0.9
A0049	28	0.3	A0095	118	1.4
A0056	58	0.7	A0096	70	0.9
A0057	63	0.8	A0097	90	1.1
A0058	74	0.9	A0098	69	0.8
A0059	56	0.7	A0099	71	0.9
A0060	56	0.7	A0100	88	1.1
A0061	70	0.9	A0101	74	0.9
A0062	47	0.6	A0102	114	1.4
A0063	39	0.5	A0103	89	1.1
A0064	49	0.6	A0104	109	1.3
A0065	37	0.5	A0105	74	0.9
A0066	121	1.5	A0106	81	1.0
A0067	60	0.7	A0107	90	1.1
A0068	76	0.9	A0108	85	1.0
A0069	53	0.7	A0115	77	0.9
A0070	57	0.7	A0116	75	0.9

See notes at end of table.

**Table P-2. Number of changes and percentage of records affected during computer edit of the public school principal data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
A0117	133	1.6	A0163	410	5.0
A0118	306	3.8	A0164	248	3.0
A0119	315	3.9	A0165	377	4.6
A0120	287	3.5	A0166	738	9.1
A0121	293	3.6	A0167	1,838	22.6
A0122	323	4.0	A0168	1,830	22.5
A0123	299	3.7	A0169	1,830	22.5
A0124	340	4.2	A0170	1,357	16.7
A0125	89	1.1	A0171	1,325	16.3
A0126	101	1.2	A0172	1,298	15.9
A0127	128	1.6	A0173	1,292	15.9
A0128	96	1.2	A0174	1,278	15.7
A0129	97	1.2	A0175	1,282	15.7
A0130	101	1.2	A0176	1,273	15.6
A0131	94	1.2	A0177	1,277	15.7
A0132	90	1.1	A0185	92	1.1
A0133	104	1.3	A0186	451	5.5
A0134	87	1.1	A0187	122	1.5
A0135	87	1.1	A0188	530	6.5
A0136	84	1.0	A0189	310	3.8
A0137	91	1.1	A0190	846	10.4
A0138	91	1.1	A0191	81	1.0
A0139	88	1.1	A0192	87	1.1
A0140	92	1.1	A0193	74	0.9
A0141	81	1.0	A0194	75	0.9
A0142	174	2.1	A0195	82	1.0
A0149	216	2.7	A0196	85	1.0
A0150	116	1.4	A0197	92	1.1
A0151	139	1.7	A0198	76	0.9
A0152	124	1.5	A0199	92	1.1
A0153	114	1.4	A0200	89	1.1
A0154	120	1.5	A0201	81	1.0
A0155	111	1.4	A0202	82	1.0
A0156	112	1.4	A0203	86	1.1
A0157	129	1.6	A0204	116	1.4
A0158	111	1.4	A0205	106	1.3
A0159	129	1.6	A0206	105	1.3
A0160	117	1.4	A0207	100	1.2
A0161	407	5.0	A0208	112	1.4
A0162	411	5.0	A0209	107	1.3

See notes at end of table.

**Table P-2. Number of changes and percentage of records affected during computer edit of the public school principal data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
A0210	99	1.2	A0241	113	1.4
A0211	93	1.1	A0242	95	1.2
A0212	107	1.3	A0243	109	1.3
A0213	92	1.1	A0244	101	1.2
A0214	103	1.3	A0245	102	1.3
A0215	101	1.2	A0246	96	1.2
A0216	105	1.3	A0247	103	1.3
A0217	85	1.0	A0254	2	0.0
A0218	93	1.1	A0255	23	0.3
A0219	97	1.2	A0256	142	1.7
A0220	106	1.3	A0257	142	1.7
A0221	93	1.1	A0258	142	1.7
A0222	89	1.1	A0259	142	1.7
A0223	102	1.3	A0260	142	1.7
A0224	94	1.2	A0261	2,363	29.0
A0225	96	1.2	A0262	105	1.3
A0226	91	1.1	A0263	421	5.2
A0227	92	1.1			
A0234	156	1.9			
A0235	167	2.1			
A0236	177	2.2			
A0237	140	1.7			
A0238	147	1.8			
A0239	134	1.6			
A0240	105	1.3			

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School Principal Documentation Data File," 2003–04.

**Table P-3. Number of changes and percentage of records affected during computer edit of the private school principal data file, by variable: 2003–04**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
A0025	117	4.9	A0079	45	1.9
A0026	8	0.3	A0080	45	1.9
A0027	27	1.1	A0082	47	2.0
A0028	384	16.2	A0084	37	1.6
A0029	375	15.8	A0085	67	2.8
A0030	23	1.0	A0086	57	2.4
A0031	55	2.3	A0087	46	1.9
A0032	31	1.3	A0089	44	1.9
A0033	67	2.8	A0091	30	1.3
A0034	76	3.2	A0092	52	2.2
A0035	58	2.4	A0093	49	2.1
A0036	47	2.0	A0094	50	2.1
A0037	20	0.8	A0096	52	2.2
A0039	10	0.4	A0098	34	1.4
A0040	56	2.4	A0099	36	1.5
A0041	53	2.2	A0100	50	2.1
A0042	48	2.0	A0101	45	1.9
A0043	24	1.0	A0103	46	1.9
A0044	17	0.7	A0105	34	1.4
A0046	26	1.1	A0106	50	2.1
A0047	20	0.8	A0107	52	2.2
A0048	20	0.8	A0108	44	1.9
A0049	21	0.9	A0115	29	1.2
A0056	32	1.3	A0116	41	1.7
A0057	39	1.6	A0117	51	2.1
A0058	41	1.7	A0118	77	3.2
A0060	34	1.4	A0119	85	3.6
A0062	24	1.0	A0120	69	2.9
A0063	20	0.8	A0121	74	3.1
A0064	46	1.9	A0122	81	3.4
A0065	27	1.1	A0123	81	3.4
A0067	42	1.8	A0124	85	3.6
A0069	27	1.1	A0125	45	1.9
A0070	29	1.2	A0127	50	2.1
A0071	49	2.1	A0128	49	2.1
A0072	35	1.5	A0129	48	2.0
A0074	48	2.0	A0130	48	2.0
A0076	38	1.6	A0131	48	2.0
A0077	45	1.9	A0132	46	1.9
A0078	57	2.4	A0133	49	2.1

See notes at end of table.

**Table P-3. Number of changes and percentage of records affected during computer edit of the private school principal data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
A0134	17	0.7	A0205	28	1.2
A0135	17	0.7	A0206	26	1.1
A0136	26	1.1	A0207	21	0.9
A0137	25	1.1	A0208	21	0.9
A0138	24	1.0	A0209	21	0.9
A0139	20	0.8	A0210	19	0.8
A0140	20	0.8	A0211	19	0.8
A0141	24	1.0	A0212	21	0.9
A0142	34	1.4	A0213	19	0.8
A0149	70	2.9	A0214	22	0.9
A0150	43	1.8	A0215	24	1.0
A0151	53	2.2	A0216	19	0.8
A0152	48	2.0	A0217	18	0.8
A0153	42	1.8	A0218	22	0.9
A0154	45	1.9	A0219	21	0.9
A0155	49	2.1	A0220	23	1.0
A0156	46	1.9	A0221	18	0.8
A0157	51	2.1	A0222	18	0.8
A0158	43	1.8	A0223	21	0.9
A0159	48	2.0	A0224	18	0.8
A0185	19	0.8	A0225	24	1.0
A0186	137	5.8	A0226	19	0.8
A0187	49	2.1	A0227	18	0.8
A0188	165	6.9	A0234	36	1.5
A0189	41	1.7	A0235	41	1.7
A0190	74	3.1	A0236	43	1.8
A0191	13	0.5	A0237	39	1.6
A0192	20	0.8	A0238	43	1.8
A0193	15	0.6	A0239	36	1.5
A0194	15	0.6	A0240	39	1.6
A0195	19	0.8	A0241	36	1.5
A0196	14	0.6	A0242	31	1.3
A0197	17	0.7	A0243	33	1.4
A0198	18	0.8	A0244	33	1.4
A0199	19	0.8	A0245	36	1.5
A0200	18	0.8	A0246	35	1.5
A0201	20	0.8	A0247	34	1.4
A0202	19	0.8	A0254	0	0.0
A0203	20	0.8	A0255	6	0.3
A0204	30	1.3	A0256	33	1.4

See notes at end of table.

**Table P-3. Number of changes and percentage of records affected during computer edit of the private school principal data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
A0257	33	1.4	A0262	38	1.6
A0258	33	1.4	A0263	292	12.3
A0259	33	1.4			
A0260	33	1.4			
A0261	544	22.9			

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Private School Principal Documentation Data File," 2003–04.

**Table P-4. Number of changes and percentage of records affected during computer edit of the BIA school principal data file, by variable: 2003–04**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
A0025	7	4.8	A0071	1	0.7
A0026	1	0.7	A0072	0	0.0
A0027	2	1.4	A0073	2	1.4
A0028	30	20.5	A0074	1	0.7
A0029	35	24.0	A0075	1	0.7
A0030	4	2.7	A0076	1	0.7
A0031	2	1.4	A0077	1	0.7
A0032	1	0.7	A0078	2	1.4
A0033	4	2.7	A0079	1	0.7
A0034	3	2.1	A0080	1	0.7
A0035	3	2.1	A0081	1	0.7
A0036	5	3.4	A0082	1	0.7
A0037	8	5.5	A0083	1	0.7
A0038	10	6.8	A0084	1	0.7
A0039	1	0.7	A0085	1	0.7
A0040	1	0.7	A0086	2	1.4
A0041	4	2.7	A0087	1	0.7
A0042	4	2.7	A0088	1	0.7
A0043	0	0.0	A0089	1	0.7
A0044	0	0.0	A0090	3	2.1
A0045	0	0.0	A0091	1	0.7
A0046	0	0.0	A0092	1	0.7
A0047	0	0.0	A0093	1	0.7
A0048	0	0.0	A0094	1	0.7
A0049	0	0.0	A0095	1	0.7
A0056	4	2.7	A0096	1	0.7
A0057	4	2.7	A0097	3	2.1
A0058	4	2.7	A0098	1	0.7
A0059	1	0.7	A0099	1	0.7
A0060	0	0.0	A0100	3	2.1
A0061	2	1.4	A0101	1	0.7
A0062	0	0.0	A0102	1	0.7
A0063	0	0.0	A0103	1	0.7
A0064	1	0.7	A0104	2	1.4
A0065	0	0.0	A0105	0	0.0
A0066	0	0.0	A0106	0	0.0
A0067	0	0.0	A0107	1	0.7
A0068	1	0.7	A0108	0	0.0
A0069	0	0.0	A0115	11	7.5
A0070	1	0.7	A0116	10	6.8

See notes at end of table.

**Table P-4. Number of changes and percentage of records affected during computer edit of the BIA school principal data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
A0117	12	8.2	A0163	18	12.3
A0118	15	10.3	A0164	16	11.0
A0119	15	10.3	A0165	18	12.3
A0120	15	10.3	A0166	28	19.2
A0121	14	9.6	A0167	54	37.0
A0122	16	11.0	A0168	54	37.0
A0123	15	10.3	A0169	54	37.0
A0124	17	11.6	A0170	47	32.2
A0125	11	7.5	A0171	46	31.5
A0126	12	8.2	A0172	46	31.5
A0127	11	7.5	A0173	46	31.5
A0128	11	7.5	A0174	46	31.5
A0129	11	7.5	A0175	46	31.5
A0130	12	8.2	A0176	46	31.5
A0131	11	7.5	A0177	45	30.8
A0132	11	7.5	A0185	9	6.2
A0133	11	7.5	A0186	21	14.4
A0134	12	8.2	A0187	10	6.8
A0135	12	8.2	A0188	25	17.1
A0136	12	8.2	A0189	16	11.0
A0137	12	8.2	A0190	30	20.5
A0138	12	8.2	A0191	11	7.5
A0139	13	8.9	A0192	11	7.5
A0140	12	8.2	A0193	11	7.5
A0141	13	8.9	A0194	11	7.5
A0142	17	11.6	A0195	11	7.5
A0149	12	8.2	A0196	12	8.2
A0150	12	8.2	A0197	11	7.5
A0151	12	8.2	A0198	11	7.5
A0152	12	8.2	A0199	11	7.5
A0153	12	8.2	A0200	11	7.5
A0154	12	8.2	A0201	11	7.5
A0155	12	8.2	A0202	11	7.5
A0156	12	8.2	A0203	11	7.5
A0157	13	8.9	A0204	11	7.5
A0158	12	8.2	A0205	11	7.5
A0159	12	8.2	A0206	12	8.2
A0160	12	8.2	A0207	12	8.2
A0161	18	12.3	A0208	11	7.5
A0162	18	12.3	A0209	11	7.5

See notes at end of table.

**Table P-4. Number of changes and percentage of records affected during computer edit of the BIA school principal data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
A0210	11	7.5	A0241	10	6.8
A0211	11	7.5	A0242	10	6.8
A0212	11	7.5	A0243	10	6.8
A0213	11	7.5	A0244	10	6.8
A0214	12	8.2	A0245	10	6.8
A0215	11	7.5	A0246	10	6.8
A0216	11	7.5	A0247	10	6.8
A0217	11	7.5	A0254	0	0.0
A0218	11	7.5	A0255	0	0.0
A0219	11	7.5	A0256	7	4.8
A0220	13	8.9	A0257	7	4.8
A0221	11	7.5	A0258	7	4.8
A0222	12	8.2	A0259	7	4.8
A0223	12	8.2	A0260	7	4.8
A0224	11	7.5	A0261	34	23.3
A0225	11	7.5	A0262	1	0.7
A0226	11	7.5	A0263	9	6.2
A0227	11	7.5			
A0234	13	8.9			
A0235	13	8.9			
A0236	13	8.9			
A0237	16	11.0			
A0238	15	10.3			
A0239	15	10.3			
A0240	10	6.8			

NOTE: BIA refers to the Bureau of Indian Affairs.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "BIA School Principal Documentation Data File," 2003–04.

**Table P-5. Number of changes and percentage of records affected during computer edit of the public school data file, by variable: 2003–04**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
S0400	4	0.1	S0446	360	4.5
S0401	4	0.1	S0447	345	4.3
S0402	4	0.1	S0448	793	9.9
S0403	4	0.1	S0449	726	9.1
S0404	4	0.1	S0450	675	8.4
S0405	4	0.1	S0451	674	8.4
S0406	4	0.1	S0452	690	8.6
S0407	4	0.1	S0453	681	8.5
S0408	4	0.1	S0454	678	8.5
S0409	4	0.1	S0455	161	2.0
S0410	4	0.1	S0456	1,299	16.3
S0411	4	0.1	S0457	246	3.1
S0412	4	0.1	S0458	281	3.5
S0413	4	0.1	S0459	335	4.2
S0414	656	8.2	S0460	269	3.4
S0415	382	4.8	S0461	318	4.0
S0416	709	8.9	S0462	186	2.3
S0417	680	8.5	S0463	159	2.0
S0418	760	9.5	S0464	145	1.8
S0419	747	9.3	S0465	163	2.0
S0420	753	9.4	S0466	158	2.0
S0421	801	10.0	S0467	203	2.5
S0422	1,359	17.0	S0468	172	2.2
S0423	1,116	14.0	S0469	219	2.7
S0424	169	2.1	S0470	793	9.9
S0425	879	11.0	S0471	761	9.5
S0426	186	2.3	S0472	725	9.1
S0427	240	3.0	S0473	725	9.1
S0428	245	3.1	S0474	725	9.1
S0429	1,207	15.1	S0475	219	2.7
S0430	249	3.1	S0476	182	2.3
S0431	445	5.6	S0477	208	2.6
S0432	156	2.0	S0478	182	2.3
S0433	153	1.9	S0479	176	2.2
S0434	78	1.0	S0480	348	4.4
S0441	37	0.5	S0481	263	3.3
S0442	92	1.2	S0482	253	3.2
S0443	55	0.7	S0489	218	2.7
S0444	68	0.9	S0490	248	3.1
S0445	486	6.1	S0491	202	2.5

See notes at end of table.

**Table P-5. Number of changes and percentage of records affected during computer edit of the public school data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
S0492	237	3.0	S0538	2,002	25.1
S0493	221	2.8	S0539	1,692	21.2
S0494	172	2.2	S0540	2,773	34.7
S0495	218	2.7	S0541	701	8.8
S0496	130	1.6	S0542	2,459	30.8
S0497	1,037	13.0	S0543	709	8.9
S0498	618	7.7	S0544	2,272	28.4
S0499	683	8.5	S0545	603	7.5
S0500	658	8.2	S0546	2,563	32.1
S0501	650	8.1	S0547	717	9.0
S0502	647	8.1	S0548	2,535	31.7
S0503	1,094	13.7	S0549	579	7.2
S0504	619	7.7	S0550	2,401	30.0
S0505	776	9.7	S0551	580	7.3
S0506	798	10.0	S0552	2,429	30.4
S0513	100	1.3	S0553	668	8.4
S0514	544	6.8	S0554	2,481	31.0
S0515	478	6.0	S0555	728	9.1
S0516	533	6.7	S0556	2,500	31.3
S0517	582	7.3	S0557	316	4.0
S0518	668	8.4	S0558	2,567	32.1
S0519	707	8.8	S0559	723	9.0
S0520	660	8.3	S0560	2,441	30.5
S0521	247	3.1	S0561	411	5.1
S0522	3,036	38.0	S0562	2,534	31.7
S0523	342	4.3	S0563	1,427	17.9
S0524	2,786	34.9	S0564	2,906	36.4
S0525	683	8.5	S0565	362	4.5
S0526	2,743	34.3	S0566	632	7.9
S0527	463	5.8	S0567	857	10.7
S0528	2,777	34.8	S0568	709	8.9
S0529	490	6.1	S0569	781	9.8
S0530	2,646	33.1	S0570	817	10.2
S0531	947	11.9	S0571	865	10.8
S0532	2,330	29.2	S0572	762	9.5
S0533	861	10.8	S0573	813	10.2
S0534	2,417	30.2	S0574	845	10.6
S0535	1,255	15.7	S0575	864	10.8
S0536	2,070	25.9	S0576	821	10.3
S0537	1,359	17.0	S0577	774	9.7

See notes at end of table.

**Table P-5. Number of changes and percentage of records affected during computer edit of the public school data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
S0578	823	10.3	S0630	190	2.4
S0579	327	4.1	S0631	446	5.6
S0580	512	6.4	S0632	332	4.2
S0581	490	6.1	S0633	2,716	34.0
S0582	504	6.3	S0634	1,298	16.2
S0583	493	6.2	S0635	957	12.0
S0584	500	6.3	S0636	2,337	29.2
S0585	508	6.4	S0637	1,751	21.9
S0586	498	6.2	S0638	471	5.9
S0593	612	7.7	S0639	706	8.8
S0594	636	8.0	S0640	789	9.9
S0595	358	4.5	S0641	795	9.9
S0596	673	8.4	S0642	791	9.9
S0597	332	4.2	S0643	793	9.9
S0604	662	8.3	S0644	785	9.8
S0605	394	4.9	S0645	742	9.3
S0606	2,744	34.3	S0646	645	8.1
S0607	2,370	29.7	S0647	633	7.9
S0608	2,846	35.6	S0648	574	7.2
S0609	3,029	37.9	S0649	572	7.2
S0610	776	9.7	S0650	558	7.0
S0611	822	10.3	S0651	553	6.9
S0612	1,022	12.8	S0652	465	5.8
S0613	1,030	12.9	S0653	1,219	15.3
S0614	1,041	13.0	S0654	1,247	15.6
S0615	1,050	13.1	S0655	1,306	16.3
S0616	1,027	12.9	S0656	1,366	17.1
S0617	1,093	13.7	S0661	278	3.5
S0618	1,034	12.9	S0662	289	3.6
S0619	1,336	16.7	S0663	297	3.7
S0620	666	8.3	S0664	296	3.7
S0621	741	9.3	S0665	532	6.7
S0622	671	8.4	S0666	533	6.7
S0623	684	8.6	S0667	499	6.2
S0624	680	8.5	S0668	769	9.6
S0625	733	9.2	S0669	432	5.4
S0626	1,156	14.5	S0670	481	6.0
S0627	547	6.8	S0671	884	11.1
S0628	599	7.5	S0950	49	0.6
S0629	661	8.3			

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School Documentation Data File," 2003–04.

**Table P-6. Number of changes and percentage of records affected during computer edit of the private school data file, by variable: 2003–04**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
S0700	237	9.6	S0420	1,745	71.1
S0701	118	4.8	S0421	1,741	70.9
S0702	172	7.0	S0422	530	21.6
S0703	47	1.9	S0423	336	13.7
S0704	188	7.7	S0424	101	4.1
S0705	49	2.0	S0425	343	14.0
S0706	215	8.8	S0063	181	7.4
S0707	94	3.8	S0426	173	7.0
S0708	248	10.1	S0427	149	6.1
S0709	120	4.9	S0428	159	6.5
S0710	163	6.6	S0429	197	8.0
S0711	68	2.8	S0430	67	2.7
S0712	195	7.9	S0431	109	4.4
S0713	71	2.9	S0432	66	2.7
S0714	201	8.2	S0433	65	2.6
S0715	70	2.9	S0434	51	2.1
S0716	214	8.7	S0441	164	6.7
S0717	66	2.7	S0736	53	2.2
S0718	218	8.9	S0737	55	2.2
S0719	62	2.5	S0738	67	2.7
S0720	234	9.5	S0739	244	9.9
S0721	76	3.1	S0740	137	5.6
S0722	255	10.4	S0741	196	8.0
S0723	75	3.1	S0742	339	13.8
S0724	263	10.7	S0743	105	4.3
S0725	72	2.9	S0744	105	4.3
S0726	370	15.1	S0745	106	4.3
S0727	97	3.9	S0746	105	4.3
S0728	383	15.6	S0747	106	4.3
S0729	96	3.9	S0748	105	4.3
S0730	397	16.2	S0749	105	4.3
S0731	101	4.1	S0750	105	4.3
S0732	407	16.6	S0751	105	4.3
S0733	101	4.1	S0752	105	4.3
S0734	682	27.8	S0753	105	4.3
S0735	48	2.0	S0754	105	4.3
S0416	383	15.6	S0755	105	4.3
S0417	323	13.2	S0756	105	4.3
S0418	393	16.0	S0757	105	4.3
S0419	350	14.3	S0758	105	4.3

See notes at end of table.

**Table P-6. Number of changes and percentage of records affected during computer edit of the private school data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
S0759	105	4.3	S0517	228	9.3
S0760	105	4.3	S0518	257	10.5
S0761	113	4.6	S0519	287	11.7
S0762	105	4.3	S0520	375	15.3
S0763	105	4.3	S0521	197	8.0
S0764	105	4.3	S0522	701	28.5
S0765	105	4.3	S0523	211	8.6
S0766	105	4.3	S0524	628	25.6
S0767	105	4.3	S0796	250	10.2
S0768	105	4.3	S0797	658	26.8
S0769	105	4.3	S0525	239	9.7
S0770	105	4.3	S0526	638	26.0
S0771	105	4.3	S0527	234	9.5
S0772	105	4.3	S0528	601	24.5
S0773	105	4.3	S0529	233	9.5
S0774	105	4.3	S0530	579	23.6
S0775	105	4.3	S0531	245	10.0
S0776	105	4.3	S0532	570	23.2
S0777	105	4.3	S0533	209	8.5
S0778	105	4.3	S0534	611	24.9
S0779	105	4.3	S0535	219	8.9
S0780	111	4.5	S0536	592	24.1
S0781	105	4.3	S0537	234	9.5
S0782	105	4.3	S0538	587	23.9
S0783	105	4.3	S0539	317	12.9
S0784	106	4.3	S0540	656	26.7
S0785	146	5.9	S0541	217	8.8
S0786	350	14.3	S0542	559	22.8
S0787	385	15.7	S0543	203	8.3
S0788	334	13.6	S0544	568	23.1
S0789	467	19.0	S0545	195	7.9
S0790	749	30.5	S0546	563	22.9
S0513	24	1.0	S0547	202	8.2
S0791	316	12.9	S0548	567	23.1
S0792	230	9.4	S0549	210	8.6
S0793	293	11.9	S0550	558	22.7
S0794	321	13.1	S0551	218	8.9
S0795	82	3.3	S0552	566	23.0
S0515	177	7.2	S0553	232	9.4
S0516	172	7.0	S0554	542	22.1

See notes at end of table.

**Table P-6. Number of changes and percentage of records affected during computer edit of the private school data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
S0555	239	9.7	S0453	176	7.2
S0556	589	24.0	S0454	199	8.1
S0557	179	7.3	S0807	191	7.8
S0558	586	23.9	S0489	107	4.4
S0559	247	10.1	S0490	145	5.9
S0560	546	22.2	S0491	132	5.4
S0561	216	8.8	S0492	136	5.5
S0562	589	24.0	S0493	132	5.4
S0563	364	14.8	S0494	120	4.9
S0564	691	28.1	S0496	96	3.9
S0565	100	4.1	S0497	302	12.3
S0276	114	4.6	S0498	204	8.3
S0277	274	11.2	S0499	178	7.2
S0278	271	11.0	S0500	172	7.0
S0279	444	18.1	S0501	170	6.9
S0280	271	11.0	S0502	170	6.9
S0281	275	11.2	S0462	93	3.8
S0282	385	15.7	S0463	96	3.9
S0283	132	5.4	S0464	93	3.8
S0284	279	11.4	S0465	100	4.1
S0285	103	4.2	S0466	104	4.2
S0503	198	8.1	S0467	103	4.2
S0798	135	5.5	S0468	96	3.9
S0799	220	9.0	S0475	89	3.6
S0505	147	6.0	S0476	89	3.6
S0506	269	11.0	S0477	100	4.1
S0800	62	2.5	S0478	89	3.6
S0801	7	0.3	S0479	94	3.8
S0802	125	5.1	S0481	91	3.7
S0803	77	3.1	S0077	129	5.3
S0804	136	5.5	S0078	123	5.0
S0805	391	15.9	S0808	138	5.6
S0806	194	7.9	S0079	145	5.9
S0443	84	3.4	S0080	138	5.6
S0447	230	9.4	S0081	135	5.5
S0448	205	8.3	S0082	146	5.9
S0449	217	8.8	S0083	142	5.8
S0450	192	7.8	S0084	142	5.8
S0451	230	9.4	S0085	144	5.9
S0452	232	9.4	S0086	146	5.9

See notes at end of table.

**Table P-6. Number of changes and percentage of records affected during computer edit of the private school data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
S0566	347	14.1	S0123	819	33.3
S0567	216	8.8	S0124	108	4.4
S0568	279	11.4	S0125	116	4.7
S0569	266	10.8	S0126	126	5.1
S0570	274	11.2	S0127	115	4.7
S0571	281	11.4	S0128	127	5.2
S0572	265	10.8	S0129	114	4.6
S0573	273	11.1	S0130	117	4.8
S0574	288	11.7	S0131	114	4.6
S0575	292	11.9	S0315	135	5.5
S0576	269	11.0	S0316	142	5.8
S0577	262	10.7	S0317	143	5.8
S0578	286	11.6	S0319	166	6.8
S0579	133	5.4	S0320	519	21.1
S0580	163	6.6	S0321	507	20.6
S0581	163	6.6	S0322	492	20.0
S0582	165	6.7	S0323	488	19.9
S0583	166	6.8	S0324	487	19.8
S0584	166	6.8	S0325	486	19.8
S0585	163	6.6	S0326	512	20.8
S0586	163	6.6	S0327	511	20.8
S0091	131	5.3	S0328	513	20.9
S0092	216	8.8	S0329	509	20.7
S0093	146	5.9	S0330	508	20.7
S0095	135	5.5	S0331	510	20.8
S0103	122	5.0	S0292	126	5.1
S0104	215	8.8	S0293	117	4.8
S0105	213	8.7	S0294	122	5.0
S0106	210	8.6	S0295	123	5.0
S0107	211	8.6	S0296	125	5.1
S0113	237	9.6	S0297	124	5.0
S0114	354	14.4	S0298	126	5.1
S0115	338	13.8	S0299	123	5.0
S0116	27	1.1	S0300	121	4.9
S0117	337	13.7	S0301	124	5.0
S0118	29	1.2	S0302	126	5.1
S0119	336	13.7	S0303	122	5.0
S0120	29	1.2	S0304	143	5.8
S0121	427	17.4	S0305	147	6.0
S0122	808	32.9	S0306	151	6.1

See notes at end of table.

**Table P-6. Number of changes and percentage of records affected during computer edit of the private school data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
S0308	141	5.7	S0621	177	7.2
S0310	177	7.2	S0622	176	7.2
S0311	182	7.4	S0623	176	7.2
S0312	185	7.5	S0624	175	7.1
S0313	173	7.0	S0625	173	7.0
S0314	170	6.9	S0626	407	16.6
S0332	188	7.7	S0627	174	7.1
S0333	217	8.8	S0628	181	7.4
S0334	220	9.0	S0629	193	7.9
S0335	214	8.7	S0632	133	5.4
S0336	212	8.6	S0633	513	20.9
S0337	212	8.6	S0634	330	13.4
S0338	208	8.5	S0635	128	5.2
S0339	210	8.6	S0636	500	20.4
S0340	210	8.6	S0637	321	13.1
S0341	210	8.6	S0638	122	5.0
S0342	207	8.4	S0639	128	5.2
S0343	207	8.4	S0640	130	5.3
S0344	209	8.5	S0641	130	5.3
S0593	155	6.3	S0642	132	5.4
S0594	146	5.9	S0643	130	5.3
S0595	203	8.3	S0644	129	5.3
S0596	161	6.6	S0645	128	5.2
S0597	147	6.0	S0646	125	5.1
S0604	132	5.4	S0647	124	5.0
S0605	610	24.8	S0648	123	5.0
S0606	530	21.6	S0649	123	5.0
S0607	702	28.6	S0650	123	5.0
S0608	900	36.6	S0651	123	5.0
S0609	949	38.6	S0652	133	5.4
S0610	157	6.4	S0653	249	10.1
S0611	194	7.9	S0654	255	10.4
S0612	352	14.3	S0655	283	11.5
S0613	343	14.0	S0657	128	5.2
S0614	348	14.2	S0658	120	4.9
S0615	345	14.0	S0659	121	4.9
S0616	345	14.0	S0660	123	5.0
S0617	345	14.0	S0668	182	7.4
S0618	346	14.1	S0669	98	4.0
S0619	469	19.1	S0670	103	4.2
S0620	174	7.1	S0671	310	12.6

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Private School Documentation Data File," 2003–04.

**Table P-7. Number of changes and percentage of records affected during computer edit of the BIA school data file, by variable: 2003–04**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
S0400	0	0.0	S0445	9	6.2
S0401	0	0.0	S0446	9	6.2
S0402	0	0.0	S0447	7	4.8
S0403	0	0.0	S0448	9	6.2
S0404	0	0.0	S0449	11	7.6
S0405	0	0.0	S0450	8	5.5
S0406	0	0.0	S0451	9	6.2
S0407	0	0.0	S0452	9	6.2
S0408	0	0.0	S0453	8	5.5
S0409	0	0.0	S0454	9	6.2
S0410	0	0.0	S0950	5	3.4
S0411	0	0.0	S0455	15	10.3
S0412	0	0.0	S0457	14	9.7
S0413	0	0.0	S0458	14	9.7
S0414	5	3.4	S0459	14	9.7
S0415	12	8.3	S0460	14	9.7
S0416	48	33.1	S0461	14	9.7
S0417	31	21.4	S0152	23	15.9
S0418	25	17.2	S0153	23	15.9
S0419	27	18.6	S0154	20	13.8
S0420	26	17.9	S0155	20	13.8
S0421	23	15.9	S0156	21	14.5
S0422	23	15.9	S0157	22	15.2
S0423	20	13.8	S0158	22	15.2
S0424	8	5.5	S0159	22	15.2
S0425	27	18.6	S0160	22	15.2
S0063	5	3.4	S0161	21	14.5
S0426	5	3.4	S0162	21	14.5
S0427	11	7.6	S0163	21	14.5
S0428	11	7.6	S0164	21	14.5
S0429	16	11.0	S0165	21	14.5
S0430	7	4.8	S0166	21	14.5
S0431	13	9.0	S0167	20	13.8
S0432	8	5.5	S0168	23	15.9
S0433	8	5.5	S0169	25	17.2
S0434	2	1.4	S0170	22	15.2
S0441	1	0.7	S0171	22	15.2
S0442	12	8.3	S0172	22	15.2
S0443	0	0.0	S0173	23	15.9
S0444	3	2.1	S0174	23	15.9

See notes at end of table.

**Table P-7. Number of changes and percentage of records affected during computer edit of the BIA school data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
S0175	23	15.9	S0215	23	15.9
S0176	22	15.2	S0216	21	14.5
S0177	22	15.2	S0217	22	15.2
S0178	22	15.2	S0218	52	35.9
S0179	24	16.6	S0219	21	14.5
S0180	24	16.6	S0220	42	29.0
S0181	24	16.6	S0221	41	28.3
S0182	23	15.9	S0222	41	28.3
S0183	25	17.2	S0223	22	15.2
S0184	21	14.5	S0224	47	32.4
S0185	25	17.2	S0225	31	21.4
S0186	22	15.2	S0226	48	33.1
S0187	22	15.2	S0227	48	33.1
S0188	22	15.2	S0228	49	33.8
S0189	23	15.9	S0229	49	33.8
S0190	23	15.9	S0230	49	33.8
S0191	23	15.9	S0231	49	33.8
S0192	22	15.2	S0232	49	33.8
S0193	22	15.2	S0233	50	34.5
S0194	22	15.2	S0462	17	11.7
S0195	22	15.2	S0463	15	10.3
S0196	22	15.2	S0464	17	11.7
S0197	22	15.2	S0465	16	11.0
S0198	22	15.2	S0466	16	11.0
S0199	23	15.9	S0467	17	11.7
S0200	21	14.5	S0468	15	10.3
S0201	26	17.9	S0469	18	12.4
S0202	22	15.2	S0470	22	15.2
S0203	22	15.2	S0471	22	15.2
S0204	22	15.2	S0472	20	13.8
S0205	23	15.9	S0473	20	13.8
S0206	23	15.9	S0474	22	15.2
S0207	23	15.9	S0475	16	11.0
S0208	22	15.2	S0476	16	11.0
S0209	22	15.2	S0477	16	11.0
S0210	22	15.2	S0478	17	11.7
S0211	23	15.9	S0479	18	12.4
S0212	22	15.2	S0480	21	14.5
S0213	22	15.2	S0481	22	15.2
S0214	22	15.2	S0482	22	15.2

See notes at end of table.

**Table P-7. Number of changes and percentage of records affected during computer edit of the BIA school data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
S0489	12	8.3	S0523	4	2.8
S0490	13	9.0	S0524	49	33.8
S0491	14	9.7	S0525	7	4.8
S0492	13	9.0	S0526	50	34.5
S0493	13	9.0	S0527	8	5.5
S0494	15	10.3	S0528	46	31.7
S0495	12	8.3	S0529	5	3.4
S0496	11	7.6	S0530	50	34.5
S0497	27	18.6	S0531	10	6.9
S0498	18	12.4	S0532	46	31.7
S0499	17	11.7	S0533	8	5.5
S0500	14	9.7	S0534	48	33.1
S0501	14	9.7	S0535	15	10.3
S0502	14	9.7	S0536	42	29.0
S0248	21	14.5	S0537	17	11.7
S0276	5	3.4	S0538	41	28.3
S0277	11	7.6	S0539	25	17.2
S0278	11	7.6	S0540	57	39.3
S0279	17	11.7	S0541	12	8.3
S0280	11	7.6	S0542	49	33.8
S0281	11	7.6	S0543	11	7.6
S0282	17	11.7	S0544	49	33.8
S0283	8	5.5	S0545	4	2.8
S0284	28	19.3	S0546	52	35.9
S0285	3	2.1	S0547	9	6.2
S0286	7	4.8	S0548	50	34.5
S0503	17	11.7	S0549	6	4.1
S0504	25	17.2	S0550	48	33.1
S0505	25	17.2	S0551	7	4.8
S0506	28	19.3	S0552	51	35.2
S0513	4	2.8	S0553	10	6.9
S0514	11	7.6	S0554	52	35.9
S0515	15	10.3	S0555	11	7.6
S0516	18	12.4	S0556	50	34.5
S0517	20	13.8	S0557	4	2.8
S0518	24	16.6	S0558	50	34.5
S0519	17	11.7	S0559	7	4.8
S0520	17	11.7	S0560	54	37.2
S0521	7	4.8	S0561	5	3.4
S0522	53	36.6	S0562	49	33.8

See notes at end of table.

**Table P-7. Number of changes and percentage of records affected during computer edit of the BIA school data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
S0563	21	14.5	S0093	23	15.9
S0564	58	40.0	S0094	22	15.2
S0565	16	11.0	S0095	25	17.2
S0566	31	21.4	S0097	22	15.2
S0567	24	16.6	S0098	23	15.9
S0568	21	14.5	S0099	23	15.9
S0569	25	17.2	S0100	23	15.9
S0570	28	19.3	S0101	23	15.9
S0571	27	18.6	S0103	26	17.9
S0572	27	18.6	S0104	28	19.3
S0573	28	19.3	S0105	26	17.9
S0574	28	19.3	S0106	27	18.6
S0575	29	20.0	S0107	28	19.3
S0576	28	19.3	S0113	8	5.5
S0577	27	18.6	S0114	17	11.7
S0578	27	18.6	S0115	25	17.2
S0579	17	11.7	S0116	0	0.0
S0580	20	13.8	S0117	25	17.2
S0581	21	14.5	S0118	0	0.0
S0582	21	14.5	S0119	25	17.2
S0583	22	15.2	S0120	0	0.0
S0584	23	15.9	S0121	24	16.6
S0585	21	14.5	S0122	49	33.8
S0586	21	14.5	S0123	49	33.8
S0077	27	18.6	S0124	20	13.8
S0078	21	14.5	S0125	20	13.8
S0079	25	17.2	S0126	20	13.8
S0080	25	17.2	S0127	21	14.5
S0081	24	16.6	S0128	20	13.8
S0082	26	17.9	S0129	20	13.8
S0083	26	17.9	S0130	20	13.8
S0084	25	17.2	S0131	20	13.8
S0085	24	16.6	S0315	21	14.5
S0086	25	17.2	S0316	22	15.2
S0087	22	15.2	S0317	22	15.2
S0088	23	15.9	S0319	27	18.6
S0089	23	15.9	S0320	38	26.2
S0090	22	15.2	S0321	37	25.5
S0091	23	15.9	S0322	37	25.5
S0092	29	20.0	S0323	37	25.5

See notes at end of table.

**Table P-7. Number of changes and percentage of records affected during computer edit of the BIA school data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
S0324	37	25.5	S0608	69	47.6
S0325	37	25.5	S0609	68	46.9
S0326	41	28.3	S0610	20	13.8
S0327	41	28.3	S0611	24	16.6
S0328	41	28.3	S0612	25	17.2
S0329	40	27.6	S0613	25	17.2
S0330	40	27.6	S0614	23	15.9
S0331	40	27.6	S0615	25	17.2
S0304	20	13.8	S0616	25	17.2
S0305	20	13.8	S0617	26	17.9
S0306	20	13.8	S0618	23	15.9
S0308	27	18.6	S0619	32	22.1
S0309	28	19.3	S0620	27	18.6
S0310	28	19.3	S0621	25	17.2
S0311	30	20.7	S0622	26	17.9
S0312	28	19.3	S0623	28	19.3
S0313	29	20.0	S0624	26	17.9
S0314	28	19.3	S0625	25	17.2
S0332	29	20.0	S0626	25	17.2
S0333	35	24.1	S0627	22	15.2
S0334	31	21.4	S0628	23	15.9
S0335	31	21.4	S0629	25	17.2
S0336	31	21.4	S0630	3	2.1
S0337	31	21.4	S0631	6	4.1
S0338	31	21.4	S0632	16	11.0
S0339	32	22.1	S0633	60	41.4
S0340	32	22.1	S0634	37	25.5
S0341	31	21.4	S0635	101	69.7
S0342	31	21.4	S0636	71	49.0
S0343	31	21.4	S0637	86	59.3
S0344	31	21.4	S0638	10	6.9
S0593	27	18.6	S0639	65	44.8
S0594	29	20.0	S0640	68	46.9
S0595	20	13.8	S0641	68	46.9
S0596	30	20.7	S0642	70	48.3
S0597	20	13.8	S0643	68	46.9
S0604	13	9.0	S0644	66	45.5
S0605	4	2.8	S0645	65	44.8
S0606	62	42.8	S0646	59	40.7
S0607	46	31.7	S0647	58	40.0

See notes at end of table.

**Table P-7. Number of changes and percentage of records affected during computer edit of the BIA school data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
S0648	30	20.7	S0261	12	8.3
S0649	29	20.0	S0262	13	9.0
S0650	29	20.0	S0263	12	8.3
S0651	29	20.0	S0264	12	8.3
S0652	14	9.7	S0265	14	9.7
S0653	88	60.7	S0266	10	6.9
S0654	86	59.3	S0267	15	10.3
S0655	81	55.9	S0268	12	8.3
S0656	82	56.6	S0269	20	13.8
S0661	2	1.4	S0270	11	7.6
S0662	3	2.1	S0668	25	17.2
S0663	1	0.7	S0669	16	11.0
S0664	1	0.7	S0670	16	11.0
S0665	9	6.2	S0671	32	22.1
S0666	13	9.0			
S0667	9	6.2			
S0257	11	7.6			
S0258	11	7.6			
S0259	11	7.6			
S0260	12	8.3			

NOTE: BIA refers to the Bureau of Indian Affairs.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "BIA School Documentation Data File," 2003–04.

**Table P-8. Number of changes and percentage of records affected during computer edit of the public school teacher data file, by variable: 2003–04**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
T0026	139	0	T0076	3,140	7
T0027	6,020	14	T0077	1,988	5
T0028	1,078	2	T0079	2,740	6
T0029	1,978	5	T0080	2,435	6
T0030	66	0	T0082	3,080	7
T0031	4,567	11	T0083	2,904	7
T0032	730	2	T0085	3,459	8
T0033	5,073	12	T0086	3,175	7
T0034	574	1	T0088	3,667	8
T0035	458	1	T0089	2,951	7
T0036	4,116	10	T0091	3,388	8
T0037	7,219	17	T0092	2,050	5
T0038	323	1	T0094	2,333	5
T0039	3,633	8	T0095	1,139	3
T0040	3,348	8	T0097	1,226	3
T0051	0	0	T0098	978	2
T0052	0	0	T0100	1,028	2
T0053	0	0	T0101	874	2
T0054	0	0	T0103	930	2
T0055	0	0	T0104	834	2
T0056	0	0	T0106	883	2
T0057	0	0	T0116	184	0
T0058	0	0	T0117	723	2
T0059	0	0	T0118	666	2
T0060	0	0	T0119	628	1
T0061	0	0	T0120	2,675	6
T0062	0	0	T0121	2,438	6
T0063	0	0	T0122	1	0
T0064	0	0	T0123	679	2
T0065	0	0	T0124	850	2
T0066	407	1	T0125	731	2
T0067	4,277	10	T0126	750	2
T0068	855	2	T0127	4,051	9
T0069	810	2	T0128	1,537	4
T0070	1,530	4	T0129	1,677	4
T0071	1,685	4	T0130	1,675	4
T0072	1,243	3	T0131	1,793	4
T0073	1,380	3	T0132	2,595	6
T0074	1,377	3	T0133	2,531	6
T0075	1,991	5	T0134	2,716	6

See notes at end of table.

**Table P-8. Number of changes and percentage of records affected during computer edit of the public school teacher data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
T0135	1,942	4	T0181	743	2
T0136	1,834	4	T0182	547	1
T0137	1,994	5	T0183	151	0
T0138	1,535	4	T0184	181	0
T0139	1,670	4	T0185	217	1
T0140	1,531	4	T0186	148	0
T0141	1,600	4	T0187	1,621	4
T0142	1,632	4	T0188	2,629	6
T0143	1,542	4	T0189	2,385	6
T0144	1,647	4	T0190	2,305	5
T0145	5,128	12	T0191	2,374	5
T0146	6,077	14	T0192	2,008	5
T0147	6,161	14	T0193	174	0
T0148	5,306	12	T0194	151	0
T0149	7,404	17	T0195	189	0
T0150	5,713	13	T0196	87	0
T0151	646	1	T0197	495	1
T0152	657	2	T0198	278	1
T0153	610	1	T0199	352	1
T0154	816	2	T0200	91	0
T0155	640	1	T0201	85	0
T0156	1,786	4	T0202	65	0
T0157	823	2	T0203	84	0
T0158	805	2	T0204	38	0
T0159	958	2	T0205	35	0
T0166	371	1	T0206	31	0
T0167	1,787	4	T0207	34	0
T0168	2,090	5	T0208	13	0
T0169	2,090	5	T0209	2,178	5
T0170	2,087	5	T0210	5,244	12
T0171	556	1	T0211	5,229	12
T0172	677	2	T0212	5,207	12
T0173	679	2	T0213	5,144	12
T0174	678	2	T0214	5,203	12
T0175	2,453	6	T0215	5,208	12
T0176	1,849	4	T0216	5,348	12
T0177	1,975	5	T0217	5,293	12
T0178	739	2	T0218	5,293	12
T0179	397	1	T0219	5,287	12
T0180	649	2	T0220	5,281	12

See notes at end of table.

**Table P-8. Number of changes and percentage of records affected during computer edit of the public school teacher data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
T0221	5,293	12	T0267	808	2
T0222	5,272	12	T0268	856	2
T0223	5,290	12	T0269	924	2
T0224	5,273	12	T0270	1,130	3
T0225	5,297	12	T0271	1,403	3
T0226	5,347	12	T0279	1,653	4
T0227	2,431	6	T0280	1,298	3
T0228	2,484	6	T0281	1,713	4
T0235	1,932	4	T0282	1,363	3
T0236	2,274	5	T0283	831	2
T0237	2,725	6	T0284	1,347	3
T0238	3,011	7	T0285	5,944	14
T0239	2,576	6	T0286	1,383	3
T0240	2,889	7	T0287	2,500	6
T0241	1,813	4	T0288	2,385	6
T0242	2,775	6	T0289	2,337	5
T0243	1,351	3	T0290	1,183	3
T0244	1,419	3	T0297	2,313	5
T0245	1,377	3	T0298	3,019	7
T0246	951	2	T0299	7,800	18
T0247	861	2	T0300	548	1
T0248	921	2	T0301	664	2
T0249	902	2	T0302	716	2
T0250	801	2	T0303	835	2
T0251	837	2	T0304	675	2
T0252	842	2	T0311	864	2
T0253	721	2	T0312	830	2
T0254	807	2	T0313	978	2
T0255	2,656	6	T0314	923	2
T0256	1,249	3	T0315	867	2
T0257	1,385	3	T0316	884	2
T0258	1,591	4	T0317	842	2
T0259	2,163	5	T0318	721	2
T0260	1,748	4	T0319	702	2
T0261	1,768	4	T0320	754	2
T0262	1,126	3	T0321	756	2
T0263	1,282	3	T0322	698	2
T0264	1,421	3	T0323	778	2
T0265	810	2	T0330	499	1
T0266	805	2	T0331	539	1

See notes at end of table.

**Table P-8. Number of changes and percentage of records affected during computer edit of the public school teacher data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
T0332	511	1	T0372	916	2
T0333	514	1	T0373	847	2
T0334	525	1	T0374	940	2
T0335	488	1	T0375	967	2
T0336	529	1	T0376	851	2
T0337	544	1	T0377	961	2
T0338	511	1	T0378	936	2
T0339	585	1	T0379	889	2
T0340	514	1	T0380	796	2
T0341	500	1	T0381	794	2
T0342	550	1	T0382	690	2
T0343	621	1	T0383	643	1
T0344	842	2	T0384	496	1
T0345	529	1	T0385	5,857	14
T0346	657	2	T0386	1,044	2
T0347	614	1	T0387	565	1
T0348	587	1	T0388	5,990	14
T0349	602	1	T0389	683	2
T0350	602	1	T0393	1,255	3
T0351	768	2	T0394	1,419	3
T0352	832	2	T0395	2,696	6
T0353	820	2	T0396	2,871	7
T0354	1,021	2	T0397	3,173	7
T0355	1,015	2	T0398	3,455	8
T0356	1,065	2	T0399	3,215	7
T0357	893	2	T0400	1,794	4
T0358	887	2	T0401	1,631	4
T0359	834	2	T0402	1,647	4
T0360	804	2	T0403	1,666	4
T0361	908	2	T0404	1,306	3
T0362	750	2	T0405	1,931	4
T0363	1,067	2	T0406	1,698	4
T0364	800	2	T0407	759	2
T0365	838	2	T0408	570	1
T0366	878	2	T0409	832	2
T0367	958	2	T0410	1,428	3
T0368	936	2	T0411	1,428	3
T0369	961	2	T0412	1,428	3
T0370	1,158	3	T0413	1,428	3
T0371	819	2	T0414	1,509	3

See notes at end of table.

**Table P-8. Number of changes and percentage of records affected during computer edit of the public school teacher data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
T0415	11,024	25	T0420	2,989	7
T0416	879	2			
T0417	2,045	5			
T0418	1,694	4			
T0419	1,761	4			

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School Teacher Documentation Data File," 2003–04.

**Table P-9. Number of changes and percentage of records affected during computer edit of the private school teacher data file, by variable: 2003–04**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
T0026	54	1	T0076	613	8
T0027	1,151	14	T0077	369	5
T0028	228	3	T0079	484	6
T0029	395	5	T0080	393	5
T0030	26	0	T0082	490	6
T0031	861	11	T0083	434	5
T0032	197	2	T0085	520	7
T0033	1,033	13	T0086	471	6
T0034	148	2	T0088	558	7
T0035	171	2	T0089	477	6
T0036	807	10	T0091	549	7
T0037	1,093	14	T0092	382	5
T0038	94	1	T0094	432	5
T0039	531	7	T0095	254	3
T0040	603	8	T0097	285	4
T0051	0	0	T0098	217	3
T0052	0	0	T0100	252	3
T0053	0	0	T0101	179	2
T0054	0	0	T0103	219	3
T0055	0	0	T0104	181	2
T0056	0	0	T0106	221	3
T0057	0	0	T0116	37	0
T0058	0	0	T0117	100	1
T0059	0	0	T0118	118	1
T0060	0	0	T0119	97	1
T0061	0	0	T0120	469	6
T0062	0	0	T0121	378	5
T0063	0	0	T0122	4	0
T0064	0	0	T0123	266	3
T0065	0	0	T0124	115	1
T0066	132	2	T0125	134	2
T0067	806	10	T0126	114	1
T0068	133	2	T0127	673	8
T0069	142	2	T0128	263	3
T0070	312	4	T0129	278	3
T0071	364	5	T0130	276	3
T0072	230	3	T0131	298	4
T0073	257	3	T0132	432	5
T0074	256	3	T0133	422	5
T0075	469	6	T0134	453	6

See notes at end of table.

**Table P-9. Number of changes and percentage of records affected during computer edit of the private school teacher data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
T0135	314	4	T0436	12	0
T0136	298	4	T0437	13	0
T0137	319	4	T0438	3	0
T0138	257	3	T0439	4	0
T0139	268	3	T0440	4	0
T0140	258	3	T0441	5	0
T0141	265	3	T0442	117	1
T0142	274	3	T0443	208	3
T0143	261	3	T0444	399	5
T0144	277	3	T0445	427	5
T0145	919	12	T0446	419	5
T0146	1,045	13	T0447	411	5
T0147	1,042	13	T0448	43	1
T0148	969	12	T0449	65	1
T0149	1,125	14	T0450	67	1
T0150	1,022	13	T0451	66	1
T0151	192	2	T0452	34	0
T0152	197	2	T0453	45	1
T0153	167	2	T0454	46	1
T0154	220	3	T0455	35	0
T0155	183	2	T0456	11	0
T0156	285	4	T0457	27	0
T0157	221	3	T0458	29	0
T0158	267	3	T0459	24	0
T0159	279	3	T0460	3	0
T0421	174	2	T0461	5	0
T0422	467	6	T0462	5	0
T0423	416	5	T0463	6	0
T0424	339	4	T0187	416	5
T0425	232	3	T0188	266	3
T0426	117	1	T0189	261	3
T0427	82	1	T0190	269	3
T0428	89	1	T0191	265	3
T0429	35	0	T0192	258	3
T0430	43	1	T0193	7	0
T0431	40	1	T0194	8	0
T0432	33	0	T0195	9	0
T0433	17	0	T0196	6	0
T0434	16	0	T0197	4	0
T0435	16	0	T0198	5	0

See notes at end of table.

**Table P-9. Number of changes and percentage of records affected during computer edit of the private school teacher data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
T0199	4	0	T0245	204	3
T0200	3	0	T0246	177	2
T0201	2	0	T0247	125	2
T0202	2	0	T0248	135	2
T0203	2	0	T0249	145	2
T0204	2	0	T0250	130	2
T0205	1	0	T0251	136	2
T0206	1	0	T0252	141	2
T0207	1	0	T0253	113	1
T0208	2	0	T0254	134	2
T0209	484	6	T0255	442	6
T0210	977	12	T0256	536	7
T0211	984	12	T0257	568	7
T0212	982	12	T0258	628	8
T0213	1,014	13	T0259	713	9
T0214	985	12	T0260	606	8
T0215	980	12	T0261	605	8
T0216	997	12	T0262	520	7
T0217	974	12	T0263	535	7
T0218	979	12	T0264	575	7
T0219	982	12	T0265	188	2
T0220	979	12	T0266	190	2
T0221	982	12	T0267	177	2
T0222	980	12	T0268	200	3
T0223	980	12	T0269	225	3
T0224	981	12	T0270	259	3
T0225	981	12	T0271	331	4
T0226	989	12	T0279	283	4
T0227	560	7	T0280	382	5
T0228	550	7	T0281	399	5
T0235	331	4	T0282	380	5
T0236	365	5	T0283	213	3
T0237	398	5	T0284	197	2
T0238	474	6	T0285	1,378	17
T0239	441	6	T0286	188	2
T0240	489	6	T0287	424	5
T0241	278	3	T0288	387	5
T0242	397	5	T0289	387	5
T0243	260	3	T0290	227	3
T0244	200	3	T0297	320	4

See notes at end of table.

**Table P-9. Number of changes and percentage of records affected during computer edit of the private school teacher data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
T0298	968	12	T0350	117	1
T0299	1,645	21	T0351	145	2
T0300	77	1	T0352	141	2
T0301	96	1	T0353	139	2
T0302	108	1	T0354	146	2
T0303	134	2	T0355	154	2
T0304	105	1	T0356	134	2
T0311	177	2	T0357	118	1
T0312	164	2	T0358	133	2
T0313	220	3	T0359	127	2
T0314	209	3	T0360	132	2
T0315	187	2	T0361	150	2
T0316	176	2	T0362	134	2
T0317	176	2	T0363	136	2
T0318	116	1	T0364	129	2
T0319	108	1	T0365	145	2
T0320	110	1	T0366	143	2
T0321	114	1	T0367	148	2
T0322	106	1	T0368	134	2
T0323	164	2	T0369	134	2
T0330	119	1	T0370	186	2
T0331	112	1	T0371	128	2
T0332	133	2	T0372	145	2
T0333	104	1	T0373	140	2
T0334	94	1	T0374	148	2
T0335	83	1	T0375	164	2
T0336	91	1	T0376	125	2
T0337	119	1	T0377	148	2
T0338	92	1	T0378	151	2
T0339	102	1	T0379	141	2
T0340	127	2	T0380	132	2
T0341	93	1	T0381	128	2
T0342	111	1	T0382	182	2
T0343	141	2	T0383	120	2
T0344	318	4	T0384	88	1
T0345	81	1	T0385	979	12
T0346	316	4	T0386	116	1
T0347	170	2	T0387	111	1
T0348	133	2	T0388	887	11
T0349	130	2	T0389	123	2

See notes at end of table.

**Table P-9. Number of changes and percentage of records affected during computer edit of the private school teacher data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
T0393	306	4	T0407	133	2
T0394	338	4	T0408	79	1
T0395	560	7	T0409	129	2
T0396	608	8	T0410	254	3
T0397	663	8	T0411	254	3
T0398	742	9	T0412	254	3
T0399	805	10	T0413	254	3
T0400	326	4	T0414	262	3
T0401	313	4	T0415	1,907	24
T0402	278	3	T0416	257	3
T0403	287	4	T0417	408	5
T0404	259	3	T0418	361	5
T0405	404	5	T0419	380	5
T0406	305	4	T0420	575	7
T0464	193	2			

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Private School Teacher Documentation Data File," 2003–04.

**Table P-10. Number of changes and percentage of records affected during computer edit of the BIA school teacher data file, by variable: 2003–04**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
T0026	1	0	T0076	61	10
T0027	82	13	T0077	57	9
T0028	12	2	T0079	63	10
T0029	35	6	T0080	51	8
T0030	2	0	T0082	58	9
T0031	65	10	T0083	54	9
T0032	12	2	T0085	61	10
T0033	97	16	T0086	51	8
T0034	8	1	T0088	55	9
T0035	7	1	T0089	49	8
T0036	78	13	T0091	52	8
T0037	101	16	T0092	41	7
T0038	9	1	T0094	45	7
T0039	67	11	T0095	25	4
T0040	51	8	T0097	24	4
T0051	0	0	T0098	21	3
T0052	0	0	T0100	20	3
T0053	0	0	T0101	18	3
T0054	0	0	T0103	18	3
T0055	0	0	T0104	16	3
T0056	0	0	T0106	16	3
T0057	0	0	T0116	2	0
T0058	0	0	T0117	19	3
T0059	0	0	T0118	15	2
T0060	0	0	T0119	13	2
T0061	0	0	T0120	52	8
T0062	0	0	T0121	47	8
T0063	0	0	T0122	0	0
T0064	0	0	T0123	16	3
T0065	0	0	T0124	12	2
T0066	5	1	T0125	12	2
T0067	50	8	T0126	12	2
T0068	19	3	T0127	65	10
T0069	18	3	T0128	29	5
T0070	36	6	T0129	31	5
T0071	29	5	T0130	30	5
T0072	21	3	T0131	35	6
T0073	22	4	T0132	54	9
T0074	22	4	T0133	48	8
T0075	38	6	T0134	57	9

See notes at end of table.

**Table P-10. Number of changes and percentage of records affected during computer edit of the BIA school teacher data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
T0135	40	6	T0181	10	2
T0136	34	5	T0182	4	1
T0137	40	6	T0183	4	1
T0138	28	4	T0184	3	0
T0139	33	5	T0185	4	1
T0140	28	4	T0186	3	0
T0141	30	5	T0187	50	8
T0142	34	5	T0188	81	13
T0143	30	5	T0189	67	11
T0144	34	5	T0190	66	11
T0145	101	16	T0191	60	10
T0146	111	18	T0192	55	9
T0147	113	18	T0193	6	1
T0148	118	19	T0194	3	0
T0149	134	21	T0195	5	1
T0150	107	17	T0196	1	0
T0151	47	8	T0197	13	2
T0152	49	8	T0198	7	1
T0153	48	8	T0199	8	1
T0154	51	8	T0200	2	0
T0155	48	8	T0201	3	0
T0156	66	11	T0202	3	0
T0157	53	8	T0203	1	0
T0158	55	9	T0204	1	0
T0159	59	9	T0205	2	0
T0166	7	1	T0206	1	0
T0167	38	6	T0207	0	0
T0168	39	6	T0208	0	0
T0169	39	6	T0209	75	12
T0170	39	6	T0210	93	15
T0171	14	2	T0211	93	15
T0172	10	2	T0212	92	15
T0173	10	2	T0213	92	15
T0174	10	2	T0214	94	15
T0175	37	6	T0215	94	15
T0176	28	4	T0216	94	15
T0177	27	4	T0217	95	15
T0178	6	1	T0218	95	15
T0179	11	2	T0219	96	15
T0180	8	1	T0220	94	15

See notes at end of table.

**Table P-10. Number of changes and percentage of records affected during computer edit of the BIA school teacher data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
T0221	93	15	T0267	71	11
T0222	92	15	T0268	71	11
T0223	93	15	T0269	78	13
T0224	93	15	T0270	80	13
T0225	93	15	T0271	85	14
T0226	95	15	T0279	75	12
T0227	48	8	T0280	73	12
T0228	51	8	T0281	77	12
T0235	75	12	T0282	74	12
T0236	87	14	T0283	71	11
T0237	87	14	T0284	90	14
T0238	92	15	T0285	137	22
T0239	86	14	T0286	88	14
T0240	92	15	T0287	88	14
T0241	80	13	T0288	89	14
T0242	93	15	T0289	89	14
T0243	76	12	T0290	78	13
T0244	75	12	T0297	35	6
T0245	73	12	T0298	31	5
T0246	69	11	T0299	88	14
T0247	67	11	T0300	21	3
T0248	69	11	T0301	24	4
T0249	64	10	T0302	20	3
T0250	69	11	T0303	22	4
T0251	67	11	T0304	21	3
T0252	69	11	T0311	49	8
T0253	63	10	T0312	51	8
T0254	66	11	T0313	47	8
T0255	87	14	T0314	47	8
T0256	75	12	T0315	50	8
T0257	74	12	T0316	51	8
T0258	76	12	T0317	48	8
T0259	84	13	T0318	44	7
T0260	81	13	T0319	45	7
T0261	82	13	T0320	45	7
T0262	76	12	T0321	45	7
T0263	78	13	T0322	46	7
T0264	87	14	T0323	45	7
T0265	70	11	T0330	11	2
T0266	70	11	T0331	14	2

See notes at end of table.

**Table P-10. Number of changes and percentage of records affected during computer edit of the BIA school teacher data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
T0332	9	1	T0372	45	7
T0333	10	2	T0373	45	7
T0334	9	1	T0374	45	7
T0335	11	2	T0375	50	8
T0336	12	2	T0376	51	8
T0337	10	2	T0377	53	8
T0338	10	2	T0378	52	8
T0339	11	2	T0379	52	8
T0340	11	2	T0380	54	9
T0341	10	2	T0381	52	8
T0342	13	2	T0382	28	4
T0343	14	2	T0383	25	4
T0344	12	2	T0384	10	2
T0345	10	2	T0385	86	14
T0346	12	2	T0386	21	3
T0347	12	2	T0387	12	2
T0348	14	2	T0388	117	19
T0349	11	2	T0389	15	2
T0350	13	2	T0393	24	4
T0351	8	1	T0394	30	5
T0352	9	1	T0395	53	8
T0353	9	1	T0396	56	9
T0354	12	2	T0397	71	11
T0355	11	2	T0398	64	10
T0356	11	2	T0399	53	8
T0357	12	2	T0400	31	5
T0358	13	2	T0401	34	5
T0359	9	1	T0402	33	5
T0360	12	2	T0403	32	5
T0361	10	2	T0404	37	6
T0362	9	1	T0405	39	6
T0363	11	2	T0406	50	8
T0364	46	7	T0407	13	2
T0365	44	7	T0408	6	1
T0366	44	7	T0409	14	2
T0367	44	7	T0410	19	3
T0368	46	7	T0411	19	3
T0369	46	7	T0412	19	3
T0370	49	8	T0413	19	3
T0371	45	7	T0414	28	4

See notes at end of table.

**Table P-10. Number of changes and percentage of records affected during computer edit of the BIA school teacher data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
T0415	139	22	T0420	90	14
T0416	12	2			
T0417	83	13			
T0418	72	12			
T0419	72	12			

NOTE: BIA refers to the Bureau of Indian Affairs.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), “BIA School Teacher Documentation Data File,” 2003–04.

**Table P-11. Number of changes and percentage of records affected during computer edit of the public school library media center data file, by variable: 2003–04**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
M0025	83	1.1	M0077	113	1.6
M0026	30	0.4	M0084	3	0.0
M0027	34	0.5	M0085	139	1.9
M0028	33	0.5	M0086	3	0.0
M0029	36	0.5	M0087	190	2.6
M0030	26	0.4	M0088	0	0.0
M0031	38	0.5	M0089	64	0.9
M0032	28	0.4	M0090	531	7.3
M0033	18	0.2	M0091	359	5.0
M0040	97	1.3	M0092	506	7.0
M0041	727	10.1	M0093	718	9.9
M0042	3,569	49.4	M0094	649	9.0
M0043	528	7.3	M0095	596	8.2
M0044	323	4.5	M0096	950	13.1
M0045	843	11.7	M0097	940	13.0
M0046	1,163	16.1	M0098	117	1.6
M0047	884	12.2	M0099	272	3.8
M0048	181	2.5	M0100	356	4.9
M0049	1,353	18.7	M0101	175	2.4
M0050	2,388	33.0	M0102	234	3.2
M0051	565	7.8	M0103	677	9.4
M0052	380	5.3	M0104	4,157	57.5
M0053	798	11.0	M0105	303	4.2
M0054	544	7.5	M0106	585	8.1
M0055	1,702	23.5	M0107	304	4.2
M0056	1,894	26.2	M0108	449	6.2
M0057	518	7.2	M0113	113	1.6
M0058	604	8.4	M0114	935	12.9
M0059	1,138	15.7	M0115	153	2.1
M0060	1,037	14.3	M0116	149	2.1
M0061	130	1.8	M0117	168	2.3
M0068	74	1.0	M0118	212	2.9
M0069	89	1.2	M0119	136	1.9
M0070	77	1.1	M0120	123	1.7
M0071	80	1.1	M0121	117	1.6
M0072	83	1.1	M0122	105	1.5
M0073	76	1.1	M0123	95	1.3
M0074	105	1.5	M0124	300	4.1
M0075	33	0.5	M0125	111	1.5
M0076	230	3.2	M0126	55	0.8

See notes at end of table.

**Table P-11. Number of changes and percentage of records affected during computer edit of the public school library media center data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
M0127	63	0.9	M0137	194	2.7
M0128	70	1.0	M0138	143	2.0
M0129	66	0.9	M0145	264	3.7
M0130	82	1.1	M0146	298	4.1
M0131	66	0.9	M0147	1,613	22.3
M0132	101	1.4	M0148	358	5.0
M0133	99	1.4	M0149	1,438	19.9
M0134	110	1.5	M0150	209	2.9
M0135	112	1.5	M0151	233	3.2
M0136	166	2.3			

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School Library Media Center Documentation Data File," 2003–04.

**Table P-12. Number of changes and percentage of records affected during computer edit of the BIA school library media center data file, by variable: 2003–04**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
M0025	3	2.4	M0077	6	4.8
M0026	2	1.6	M0084	0	0.0
M0027	1	0.8	M0085	10	8.1
M0028	1	0.8	M0086	0	0.0
M0029	2	1.6	M0087	11	8.9
M0030	1	0.8	M0088	0	0.0
M0031	2	1.6	M0089	0	0.0
M0032	1	0.8	M0090	19	15.3
M0033	2	1.6	M0091	11	8.9
M0040	2	1.6	M0092	16	12.9
M0041	11	8.9	M0093	21	16.9
M0042	48	38.7	M0094	18	14.5
M0043	10	8.1	M0095	14	11.3
M0044	4	3.2	M0096	28	22.6
M0045	9	7.3	M0097	21	16.9
M0046	34	27.4	M0098	7	5.6
M0047	16	12.9	M0099	14	11.3
M0048	3	2.4	M0100	19	15.3
M0049	16	12.9	M0101	12	9.7
M0050	27	21.8	M0102	16	12.9
M0051	11	8.9	M0103	18	14.5
M0052	14	11.3	M0104	77	62.1
M0053	30	24.2	M0105	15	12.1
M0054	26	21.0	M0106	22	17.7
M0055	35	28.2	M0107	15	12.1
M0056	43	34.7	M0108	19	15.3
M0057	23	18.5	M0113	9	7.3
M0058	15	12.1	M0114	18	14.5
M0059	27	21.8	M0115	8	6.5
M0060	26	21.0	M0116	8	6.5
M0061	2	1.6	M0117	9	7.3
M0068	4	3.2	M0118	10	8.1
M0069	4	3.2	M0119	9	7.3
M0070	7	5.6	M0120	11	8.9
M0071	4	3.2	M0121	10	8.1
M0072	4	3.2	M0122	9	7.3
M0073	4	3.2	M0123	7	5.6
M0074	4	3.2	M0124	13	10.5
M0075	0	0.0	M0125	6	4.8
M0076	1	0.8	M0126	2	1.6

See notes at end of table.

**Table P-12. Number of changes and percentage of records affected during computer edit of the BIA school library media center data file, by variable: 2003–04—Continued**

Variable	Total number of changes	Percentage of records affected	Variable	Total number of changes	Percentage of records affected
M0127	3	2.4	M0137	11	8.9
M0128	1	0.8	M0138	7	5.6
M0129	1	0.8	M0145	10	8.1
M0130	2	1.6	M0146	14	11.3
M0131	2	1.6	M0147	31	25.0
M0132	4	3.2	M0148	16	12.9
M0133	4	3.2	M0149	30	24.2
M0134	4	3.2	M0150	12	9.7
M0135	8	6.5	M0151	11	8.9
M0136	9	7.3			

NOTE: BIA refers to the Bureau of Indian Affairs.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), “BIA School Library Media Center Documentation Data File,” 2003–04.